

# William A Brantley

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

82  
papers

2,634  
citations

24  
h-index

49  
g-index

82  
ext. papers

2,805  
ext. citations

3  
avg, IF

4.8  
L-index

#	Paper	IF	Citations
82	An initial investigation of the bending and torsional properties of Nitinol root canal files. <i>Journal of Endodontics</i> , <b>1988</b> , 14, 346-51	4.7	724
81	SEM observations of nickel-titanium rotary endodontic instruments that fractured during clinical Use. <i>Journal of Endodontics</i> , <b>2005</b> , 31, 40-3	4.7	186
80	Metallurgical characterization of a new nickel-titanium wire for rotary endodontic instruments. <i>Journal of Endodontics</i> , <b>2009</b> , 35, 1589-93	4.7	144
79	Differential scanning calorimetry (DSC) analyses of superelastic and nonsuperelastic nickel-titanium orthodontic wires. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , <b>1996</b> , 109, 589-97	2.1	75
78	Electrochemical characteristics of nanotubes formed on TiNb alloys. <i>Thin Solid Films</i> , <b>2009</b> , 517, 5038-5043		74
77	A three-dimensional finite element stress analysis of angled abutments for an implant placed in the anterior maxilla. <i>Journal of Prosthodontics</i> , <b>1995</b> , 4, 95-100	3.9	71
76	Bending properties of superelastic and nonsuperelastic nickel-titanium orthodontic wires. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , <b>1991</b> , 99, 310-8	2.1	66
75	Comparison of bending and tension tests for orthodontic wires. <i>American Journal of Orthodontics</i> , <b>1986</b> , 89, 228-36		61
74	Nanotube morphology changes for TiZr alloys as Zr content increases. <i>Thin Solid Films</i> , <b>2009</b> , 517, 5033-5037		60
73	Porcelain adherence vs force to failure for palladium-gallium alloys: a critique of metal-ceramic bond testing. <i>Dental Materials</i> , <b>1998</b> , 14, 112-9	5.7	52
72	Nanotubular oxide layer formation on Ti3Nb13Zr alloy as a function of applied potential. <i>Journal of Materials Science</i> , <b>2009</b> , 44, 3975-3982	4.3	49
71	Effect of coating on properties of esthetic orthodontic nickel-titanium wires. <i>Angle Orthodontist</i> , <b>2012</b> , 82, 319-25	2.6	43
70	Temperature-modulated DSC provides new insight about nickel-titanium wire transformations. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , <b>2003</b> , 124, 387-94	2.1	43
69	Porcelain adherence to high-palladium alloys. <i>Journal of Prosthetic Dentistry</i> , <b>1993</b> , 70, 386-94	4	39
68	Micro-XRD and temperature-modulated DSC investigation of nickel-titanium rotary endodontic instruments. <i>Dental Materials</i> , <b>2009</b> , 25, 1221-9	5.7	38
67	Effects of a diamond-like carbon coating on the frictional properties of orthodontic wires. <i>Angle Orthodontist</i> , <b>2011</b> , 81, 141-48	2.6	37
66	Comparisons of nanoindentation, 3-point bending, and tension tests for orthodontic wires. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , <b>2011</b> , 140, 65-71	2.1	36

65	Metallurgical structure and microhardness of four new palladium-based alloys. <i>Journal of Prosthodontics</i> , <b>1996</b> , 5, 288-94	3.9	34
64	Cobalt-chromium and nickel-chromium alloys for removable prosthodontics, Part 1: Mechanical properties. <i>Journal of Prosthodontics</i> , <b>1993</b> , 2, 144-50	3.9	31
63	X-ray diffraction studies of oxidized high-palladium alloys. <i>Dental Materials</i> , <b>1996</b> , 12, 333-41	5.7	30
62	Hydroxyapatite thin film coatings on nanotube-formed Ti <sub>6</sub> Al <sub>4</sub> V alloys after femtosecond laser texturing. <i>Surface and Coatings Technology</i> , <b>2013</b> , 217, 13-22	4.4	29
61	Electrochemical and surface behavior of hydroxyapatite/Ti film on nanotubular Ti <sub>6</sub> Al <sub>4</sub> V alloys. <i>Applied Surface Science</i> , <b>2012</b> , 258, 2129-2136	6.7	29
60	Morphology of hydroxyapatite nanoparticles in coatings on nanotube-formed Ti <sub>6</sub> Al <sub>4</sub> V alloys for dental implants. <i>Vacuum</i> , <b>2014</b> , 107, 297-303	3.7	27
59	Hydroxyapatite precipitation on nanotubular films formed on Ti-6Al-4V alloy for biomedical applications. <i>Thin Solid Films</i> , <b>2013</b> , 549, 135-140	2.2	26
58	Formation of titanium dioxide nanotubes on Ti <sub>6</sub> Al <sub>4</sub> V alloys by anodizing. <i>Thin Solid Films</i> , <b>2013</b> , 549, 141-146	2.2	24
57	Hydroxyapatite formation on biomedical Ti <sub>6</sub> Al <sub>4</sub> V alloys by magnetron sputtering and electrochemical deposition. <i>Thin Solid Films</i> , <b>2014</b> , 572, 119-125	2.2	24
56	Nanostructured thin film formation on femtosecond laser-textured Ti <sub>6</sub> Al <sub>4</sub> V alloy for biomedical applications. <i>Thin Solid Films</i> , <b>2011</b> , 519, 4668-4675	2.2	22
55	Potentiodynamic polarization study of the in vitro corrosion behavior of 3 high-palladium alloys and a gold-palladium alloy in 5 media. <i>Journal of Prosthetic Dentistry</i> , <b>2002</b> , 87, 86-93	4	22
54	Evaluation of high-temperature distortion of high-palladium metal-ceramic crowns. <i>Journal of Prosthetic Dentistry</i> , <b>2001</b> , 85, 133-40	4	22
53	Surface characteristics of hydroxyapatite films deposited on anodized titanium by an electrochemical method. <i>Thin Solid Films</i> , <b>2013</b> , 546, 185-188	2.2	21
52	Inductively coupled plasma-mass spectroscopy measurements of elemental release from 2 high-palladium dental casting alloys into a corrosion testing medium. <i>Journal of Prosthetic Dentistry</i> , <b>2002</b> , 87, 80-5	4	21
51	The measure of wear in N-vinyl pyrrolidinone (NVP) modified glass-ionomer cements. <i>Polymers for Advanced Technologies</i> , <b>2005</b> , 16, 113-116	3.2	21
50	X-ray diffraction studies of as-cast high-palladium alloys. <i>Dental Materials</i> , <b>1995</b> , 11, 154-60	5.7	21
49	Effects of bonding materials on the mechanical properties of enamel around orthodontic brackets. <i>Angle Orthodontist</i> , <b>2012</b> , 82, 187-95	2.6	20
48	Torsional and metallurgical properties of rotary endodontic instruments. 2. Stainless steel Gates Glidden drills. <i>Journal of Endodontics</i> , <b>1991</b> , 17, 319-23	4.7	20

47	Hydroxyapatite coating on micropore-formed titanium alloy utilizing electrochemical deposition. <i>Thin Solid Films</i> , <b>2013</b> , 549, 154-158	2.2	19
46	Microstructural studies of 35 degrees C copper Ni-Ti orthodontic wire and TEM confirmation of low-temperature martensite transformation. <i>Dental Materials</i> , <b>2008</b> , 24, 204-10	5.7	19
45	Studies of orthodontic elastomeric modules. Part 1: glass transition temperatures for representative pigmented products in the as-received condition and after orthodontic use. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , <b>2004</b> , 126, 337-43	2.1	19
44	Silicon-substituted hydroxyapatite coating with Si content on the nanotube-formed TiNbZr alloy using electron beam-physical vapor deposition. <i>Thin Solid Films</i> , <b>2013</b> , 546, 189-195	2.2	17
43	Phenomena of nanotube nucleation and growth on new ternary titanium alloys. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2010</b> , 10, 4684-9	1.3	17
42	Differential scanning calorimetry (DSC) and temperature-modulated DSC study of three mouthguard materials. <i>Dental Materials</i> , <b>2007</b> , 23, 1492-9	5.7	17
41	Vickers hardness investigation of work-hardening in used NiTi rotary instruments. <i>Journal of Endodontics</i> , <b>2006</b> , 32, 1191-3	4.7	17
40	Effect of different high-palladium metal-ceramic alloys on the color of opaque porcelain. <i>Journal of Prosthodontics</i> , <b>2000</b> , 9, 71-6	3.9	17
39	Effect of mechanical properties of fillers on the grindability of composite resin adhesives. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , <b>2010</b> , 138, 420-426	2.1	16
38	In vitro fit of CAD-CAM complete arch screw-retained titanium and zirconia implant prostheses fabricated on 4 implants. <i>Journal of Prosthetic Dentistry</i> , <b>2018</b> , 119, 409-416	4	15
37	Mechanical properties, fracture surface characterization, and microstructural analysis of six noble dental casting alloys. <i>Journal of Prosthetic Dentistry</i> , <b>2011</b> , 105, 394-402	4	15
36	Electrochemically-coated hydroxyapatite films on nanotubular TiNb alloys prepared in solutions containing Ca, P, and Zn ions. <i>Thin Solid Films</i> , <b>2016</b> , 620, 132-138	2.2	15
35	Hydroxyapatite deposition on micropore-formed Ti-Ta-Nb alloys by plasma electrolytic oxidation for dental applications. <i>Surface and Coatings Technology</i> , <b>2016</b> , 294, 15-20	4.4	14
34	Transmission electron microscopic investigation of high-palladium dental casting alloys. <i>Dental Materials</i> , <b>1997</b> , 13, 365-71	5.7	13
33	Fracture analysis of monolithic CAD-CAM crowns. <i>Journal of Esthetic and Restorative Dentistry</i> , <b>2019</b> , 31, 346-352	3.5	12
32	Surface characteristics of hydroxyapatite coatings on nanotubular Ti5TaZr alloys prepared by electrochemical deposition. <i>Surface and Coatings Technology</i> , <b>2014</b> , 259, 274-280	4.4	12
31	Potentiodynamic polarization study of the corrosion behavior of palladium-silver dental alloys. <i>Journal of Prosthetic Dentistry</i> , <b>2018</b> , 119, 650-656	4	11
30	Surface morphology of Zn-containing hydroxyapatite (Zn-HA) deposited electrochemically on TiNb alloys. <i>Thin Solid Films</i> , <b>2015</b> , 587, 163-168	2.2	11

29	Hydroxyapatite-silicon film deposited on TiNb <sub>10</sub> Zr by electrochemical and magnetron sputtering method. <i>Thin Solid Films</i> , <b>2016</b> , 620, 114-118	2.2	11
28	Comparison of the metal-to-ceramic bond strengths of four noble alloys with press-on-metal and conventional porcelain layering techniques. <i>Journal of Prosthetic Dentistry</i> , <b>2014</b> , 112, 1194-200	4	9
27	Surface morphology of TiN-coated nanotubular Ti <sub>5</sub> Ta <sub>5</sub> Zr alloys for dental implants prepared by RF sputtering. <i>Thin Solid Films</i> , <b>2013</b> , 549, 131-134	2.2	9
26	Viscoelastic properties of elastomeric chains: an investigation of pigment and manufacturing effects. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , <b>2012</b> , 141, 315-326	2.1	9
25	A load-to-fracture and strain analysis of monolithic zirconia cantilevered frameworks. <i>Journal of Prosthetic Dentistry</i> , <b>2017</b> , 118, 752-758	4	8
24	The effect of metal recasting on porcelain-metal bonding: a force-to-failure study. <i>Journal of Prosthetic Dentistry</i> , <b>2010</b> , 104, 165-72	4	7
23	Comparison of 3D displacements of screw-retained zirconia implant crowns into implants with different internal connections with respect to screw tightening. <i>Journal of Prosthetic Dentistry</i> , <b>2018</b> , 119, 132-137	4	7
22	Differences between buccal and lingual bone quality and quantity of peri-implant regions. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2016</b> , 60, 48-55	4.1	6
21	Adhesion testing of a denture base resin with 5 casting alloys. <i>Journal of Prosthodontics</i> , <b>2000</b> , 9, 30-6	3.9	6
20	Evolution, clinical applications, and prospects of nickel-titanium alloys for orthodontic purposes. <i>Journal of the World Federation of Orthodontists</i> , <b>2020</b> , 9, S19-S26	1.2	6
19	Distortion of CAD-CAM-fabricated implant-fixed titanium and zirconia complete dental prosthesis frameworks. <i>Journal of Prosthetic Dentistry</i> , <b>2018</b> , 119, 116-123	4	5
18	Highly ordered nanotubular film formation on Ti <sub>5</sub> Nb <sub>5</sub> Zr and Ti <sub>5</sub> Ta <sub>5</sub> Hf. <i>Thin Solid Films</i> , <b>2015</b> , 596, 94-100	2.2	4
17	Hydroxyapatite precipitation on nanotube surfaces of Ti-35Ta-xNb alloys. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2014</b> , 14, 7581-4	1.3	4
16	Fatigue limits and SEM/TEM observations of fracture characteristics for three Pd-Ag dental casting alloys. <i>Journal of Materials Science: Materials in Medicine</i> , <b>2007</b> , 18, 119-25	4.5	4
15	A study of fracture loads and fracture characteristics of teeth. <i>Journal of Advanced Prosthodontics</i> , <b>2019</b> , 11, 187-192	2.2	3
14	Reprint of Hydroxyapatite deposition on micropore-formed Ti-Ta-Nb alloys by plasma electrolytic oxidation for dental applications <i>Surface and Coatings Technology</i> , <b>2016</b> , 307, 1152-1157	4.4	3
13	ICP-MS measurements of elemental release from two palladium alloys into a corrosion testing medium for different solution volumes and agitation conditions. <i>Journal of Prosthetic Dentistry</i> , <b>2021</b> ,	4	3
12	Wear characteristics and inhibition of enamel demineralization by resin-based coating materials. <i>European Journal of Oral Sciences</i> , <b>2017</b> , 125, 160-167	2.3	2

11	Novel sensor to investigate microstructural contributions to corrosion of high-palladium dental alloys. <i>Medical Devices &amp; Sensors</i> , <b>2020</b> , 3, e10060	1.6	2
10	Electrochemical impedance spectroscopy study of corrosion characteristics of palladium-silver dental alloys. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , <b>2021</b> , 109, 1777-1786	3.5	2
9	Next-Generation Rotary Endodontic Instruments Fabricated from Special Nickel-Titanium Alloy. <i>Ceramic Transactions</i> , 11-18	0.1	2
8	Characterization of Next-Generation Nickel-Titanium Rotary Endodontic Instruments. <i>Ceramic Transactions</i> , 11-18	0.1	2
7	SEM study of simulated clinical use for four nickel-titanium rotary endodontic files. <i>Medical Devices &amp; Sensors</i> , <b>2019</b> , 2, e10024	1.6	1
6	Micro-X-Ray Diffraction Study of New Nickel-Titanium Rotary Endodontic Instruments. <i>Ceramic Transactions</i> , <b>2015</b> , 47-54	0.1	1
5	Characterization of New Nickel-Titanium Wire for Rotary Endodontic Instruments. <i>Ceramic Transactions</i> , 47-57	0.1	0
4	Micro-XRD and nanoindentation investigation of bioceramics for dental pulp therapy. <i>Medical Devices &amp; Sensors</i> , <b>2019</b> , 2, e10027	1.6	
3	Nonlinear sensors for biomaterials Principles and applications. <i>Medical Devices &amp; Sensors</i> , <b>2020</b> , 3, e10101	1.6	
2	Metallurgical Characterization of Laser-Sintered Cobalt-Chromium Dental Alloy. <i>Ceramic Transactions</i> , <b>2014</b> , 11-20	0.1	
1	Idealized force decay of orthodontic elastomeric chains follows Nutting Equation. <i>Medical Devices &amp; Sensors</i> , <b>2021</b> , 4, e10145	1.6	