

# Michael V Swain

## List of Publications by Citations

**Source:** <https://exaly.com/author-pdf/6607460/michael-v-swain-publications-by-citations.pdf>

**Version:** 2024-04-26

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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

434  
papers

16,819  
citations

66  
h-index

106  
g-index

441  
ext. papers

18,604  
ext. citations

4.5  
avg, IF

6.97  
L-index

#	Paper	IF	Citations
434	Strength, fracture toughness and microstructure of a selection of all-ceramic materials. Part II. Zirconia-based dental ceramics. <i>Dental Materials</i> , <b>2004</b> , 20, 449-56	5.7	573
433	A simple predictive model for spherical indentation. <i>Journal of Materials Research</i> , <b>1993</b> , 8, 297-306	2.5	571
432	Unstable cracking (chipping) of veneering porcelain on all-ceramic dental crowns and fixed partial dentures. <i>Acta Biomaterialia</i> , <b>2009</b> , 5, 1668-77	10.8	363
431	Influence of surface and heat treatments on the flexural strength of Y-TZP dental ceramic. <i>Journal of Dentistry</i> , <b>2005</b> , 33, 9-18	4.8	337
430	Determining the mechanical properties of small volumes of material from submicrometer spherical indentations. <i>Journal of Materials Research</i> , <b>1995</b> , 10, 101-112	2.5	302
429	Strength, fracture toughness and microstructure of a selection of all-ceramic materials. Part I. Pressable and alumina glass-infiltrated ceramics. <i>Dental Materials</i> , <b>2004</b> , 20, 441-8	5.7	283
428	Mechanical properties of polymer-infiltrated-ceramic-network materials. <i>Dental Materials</i> , <b>2013</b> , 29, 419-26	5.6	281
427	Indentation deformation/fracture of normal and anomalous glasses. <i>Journal of Non-Crystalline Solids</i> , <b>1979</b> , 31, 415-428	3.9	281
426	A Critical Review of Dental Implant Materials with an Emphasis on Titanium Zirconia. <i>Materials</i> , <b>2015</b> , 8, 932-958	3.5	253
425	Understanding the mechanical behaviour of human enamel from its structural and compositional characteristics. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2008</b> , 1, 18-29	4.1	241
424	State of the art of Micro-CT applications in dental research. <i>International Journal of Oral Science</i> , <b>2009</b> , 1, 177-88	27.9	209
423	Grain-Size-Dependent Transformation Behavior in Polycrystalline Tetragonal Zirconia. <i>Journal of the American Ceramic Society</i> , <b>1992</b> , 75, 493-502	3.8	200
422	Elastic modulus and stress-strain response of human enamel by nano-indentation. <i>Biomaterials</i> , <b>2006</b> , 27, 4388-98	15.6	166
421	Topographical analysis of the structural, biochemical and dynamic biomechanical properties of cartilage in an ovine model of osteoarthritis. <i>Osteoarthritis and Cartilage</i> , <b>2003</b> , 11, 65-77	6.2	152
420	Mechanical property characterization of thin films using spherical tipped indenters. <i>Thin Solid Films</i> , <b>1994</b> , 253, 204-211	2.2	149
419	Observation, analysis, and simulation of the hysteresis of silicon using ultra-micro-indentation with spherical indenters. <i>Journal of Materials Research</i> , <b>1993</b> , 8, 830-840	2.5	142
418	Titanium dioxide nanoparticles addition to a conventional glass-ionomer restorative: influence on physical and antibacterial properties. <i>Journal of Dentistry</i> , <b>2011</b> , 39, 589-98	4.8	134

4 <sup>17</sup>	Crack Resistance Curves in Magnesia-Partially-Stabilized Zirconia. <i>Journal of the American Ceramic Society</i> , <b>1988</b> , 71, 399-407	3.8	132
4 <sup>16</sup>	The dentin organic matrix - limitations of restorative dentistry hidden on the nanometer scale. <i>Acta Biomaterialia</i> , <b>2012</b> , 8, 2419-33	10.8	122
4 <sup>15</sup>	Enamel - a "metallic-like" deformable biocomposite. <i>Journal of Dentistry</i> , <b>2007</b> , 35, 431-7	4.8	121
4 <sup>14</sup>	A novel polymer infiltrated ceramic dental material. <i>Dental Materials</i> , <b>2011</b> , 27, 527-34	5.7	120
4 <sup>13</sup>	Comparative Measurement of Indentation Fracture Toughness with Berkovich and Vickers Indenters. <i>Journal of the American Ceramic Society</i> , <b>1992</b> , 75, 3299-3304	3.8	120
4 <sup>12</sup>	Mechanical behaviour of porous hydroxyapatite. <i>Acta Biomaterialia</i> , <b>2008</b> , 4, 577-86	10.8	119
4 <sup>11</sup>	Fracture-toughening mechanisms responsible for differences in work to fracture of hydrated and dehydrated dentine. <i>Journal of Biomechanics</i> , <b>2003</b> , 36, 229-37	2.9	119
4 <sup>10</sup>	Mechanical properties and microstructure of hypomineralised enamel of permanent teeth. <i>Biomaterials</i> , <b>2004</b> , 25, 5091-100	15.6	115
4 <sup>09</sup>	Influence of surface and heat treatments on the flexural strength of a glass-infiltrated alumina/zirconia-reinforced dental ceramic. <i>Dental Materials</i> , <b>2005</b> , 21, 454-63	5.7	115
4 <sup>08</sup>	Inelastic deformation of Mg?PSZ and its significance for strength-toughness relationship of zirconia toughened ceramics. <i>Acta Metallurgica</i> , <b>1985</b> , 33, 2083-2091		113
4 <sup>07</sup>	Errors associated with depth-sensing microindentation tests. <i>Journal of Materials Research</i> , <b>1995</b> , 10, 1491-1501	2.5	109
4 <sup>06</sup>	Dependence of Fracture Toughness of Alumina on Grain Size and Test Technique. <i>Journal of the American Ceramic Society</i> , <b>1982</b> , 65, 566-572	3.8	109
4 <sup>05</sup>	Thermal gradients and residual stresses in veneered Y-TZP frameworks. <i>Dental Materials</i> , <b>2011</b> , 27, 1102-1105	5.10	108
4 <sup>04</sup>	Metastability of the Martensitic Transformation in a 12 mol% Ceria-Zirconia Alloy: II, Grinding Studies. <i>Journal of the American Ceramic Society</i> , <b>1989</b> , 72, 1358-1364	3.8	108
4 <sup>03</sup>	Dental implant induced bone remodeling and associated algorithms. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2009</b> , 2, 410-32	4.1	107
4 <sup>02</sup>	Mechanical responses to orthodontic loading: a 3-dimensional finite element multi-tooth model. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , <b>2009</b> , 135, 174-81	2.1	106
4 <sup>01</sup>	Mandibular bone remodeling induced by dental implant. <i>Journal of Biomechanics</i> , <b>2010</b> , 43, 287-93	2.9	102
4 <sup>00</sup>	Modified four-point bending specimen for determining the interface fracture energy for thin, brittle layers. <i>International Journal of Fracture</i> , <b>1998</b> , 92, 213-220	2.3	99

399	Gelatin sponges (Gelfoam) as a scaffold for osteoblasts. <i>Journal of Materials Science: Materials in Medicine</i> , <b>2008</b> , 19, 1173-82	4.5	97
398	Investigation of the stresses and stress intensity factors responsible for fracture of thin protective films during ultra-micro indentation tests with spherical indenters. <i>Thin Solid Films</i> , <b>1996</b> , 286, 111-121	2.2	96
397	R-Curve Behavior and Thermal Shock Resistance of Ceramics. <i>Journal of the American Ceramic Society</i> , <b>1990</b> , 73, 621-628	3.8	96
396	Micro-mechanical characterisation of the properties of primary tooth dentine. <i>Journal of Dentistry</i> , <b>2003</b> , 31, 261-7	4.8	89
395	Functional significance of strain distribution in the human mandible under masticatory load: numerical predictions. <i>Archives of Oral Biology</i> , <b>2007</b> , 52, 465-73	2.8	88
394	In-vitro strength degradation of dental ceramics and novel PICN material by sharp indentation. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2013</b> , 26, 34-42	4.1	87
393	Design optimization of functionally graded dental implant for bone remodeling. <i>Composites Part B: Engineering</i> , <b>2009</b> , 40, 668-675	10	86
392	Surface morphology optimization for osseointegration of coated implants. <i>Biomaterials</i> , <b>2010</b> , 31, 7196-2006	10.6	83
391	Nanoindentation: Application to dental hard tissue investigations. <i>Journal of Materials Research</i> , <b>2006</b> , 21, 1893-1905	2.5	82
390	Size-dependent elastic/inelastic behavior of enamel over millimeter and nanometer length scales. <i>Biomaterials</i> , <b>2010</b> , 31, 1955-63	15.6	81
389	Nanoindentation derived stress-strain properties of dental materials. <i>Dental Materials</i> , <b>2007</b> , 23, 814-21	5.7	81
388	Mineral density of hypomineralised enamel. <i>Journal of Dentistry</i> , <b>2010</b> , 38, 50-8	4.8	80
387	SEM observations of porcelain Y-TZP interface. <i>Dental Materials</i> , <b>2009</b> , 25, 857-62	5.7	80
386	Enamel--a functionally graded natural coating. <i>Journal of Dentistry</i> , <b>2009</b> , 37, 596-603	4.8	80
385	The accuracy and reliability of a novel handheld dynamic indentation probe for analysing articular cartilage. <i>Physics in Medicine and Biology</i> , <b>2001</b> , 46, 541-50	3.8	80
384	Interpenetrating network ceramic-resin composite dental restorative materials. <i>Dental Materials</i> , <b>2016</b> , 32, 34-42	5.7	79
383	Application of polychromatic $\mu$ CT for mineral density determination. <i>Journal of Dental Research</i> , <b>2011</b> , 90, 18-30	8.1	78
382	Influence of environment on the mechanical behaviour of mature human enamel. <i>Biomaterials</i> , <b>2007</b> , 28, 4512-20	15.6	78

381	Atomic-scale compositional mapping reveals Mg-rich amorphous calcium phosphate in human dental enamel. <i>Science Advances</i> , <b>2016</b> , 2, e1601145	14.3	76
380	Correlating the mechanical properties to the mineral content of carious dentine--a comparative study using an ultra-micro indentation system (UMIS) and SEM-BSE signals. <i>Archives of Oral Biology</i> , <b>2004</b> , 49, 369-78	2.8	76
379	Fracture toughness of bovine bone: influence of orientation and storage media. <i>Biomaterials</i> , <b>2001</b> , 22, 3127-32	15.6	76
378	Mechanical properties and adhesion characteristics of hybrid sol-gel thin films. <i>Surface and Coatings Technology</i> , <b>2005</b> , 192, 354-364	4.4	75
377	Metastability of the Martensitic Transformation in a 12 mol% Ceria-Zirconia Alloy: I, Deformation and Fracture Observations. <i>Journal of the American Ceramic Society</i> , <b>1989</b> , 72, 90-98	3.8	74
376	The effect of annealing temperatures on surface properties, hydroxyapatite growth and cell behaviors of TiO <sub>2</sub> nanotubes. <i>Surface and Interface Analysis</i> , <b>2011</b> , 43, 998-1005	1.5	73
375	Characterisation of enamel white spot lesions using X-ray micro-tomography. <i>Journal of Dentistry</i> , <b>2007</b> , 35, 737-43	4.8	73
374	Fracture resistance of titanium and zirconia abutments: an in vitro study. <i>Journal of Prosthetic Dentistry</i> , <b>2013</b> , 109, 304-12	4	72
373	The combined effect of alumina and silica co-doping on the ageing resistance of 3Y-TZP bioceramics. <i>Acta Biomaterialia</i> , <b>2015</b> , 11, 477-87	10.8	69
372	The indentation characterisation of the mechanical properties of various carbon materials: Glassy carbon, coke and pyrolytic graphite. <i>Carbon</i> , <b>1996</b> , 34, 1357-1366	10.4	69
371	Indentation fracture in brittle rocks and glasses. <i>International Journal of Rock Mechanics and Mining Sciences</i> , <b>1976</b> , 13, 311-319		69
370	Protein content of molar-incisor hypomineralisation enamel. <i>Journal of Dentistry</i> , <b>2010</b> , 38, 591-6	4.8	68
369	Mechanical properties across hypomineralized/hypoplastic enamel of first permanent molar teeth. <i>European Journal of Oral Sciences</i> , <b>2004</b> , 112, 497-502	2.3	67
368	On the structure-property relationship of sound and hypomineralized enamel. <i>Acta Biomaterialia</i> , <b>2007</b> , 3, 865-72	10.8	66
367	Contact induced deformation of enamel. <i>Applied Physics Letters</i> , <b>2007</b> , 90, 171916	3.4	66
366	A periodontal ligament driven remodeling algorithm for orthodontic tooth movement. <i>Journal of Biomechanics</i> , <b>2014</b> , 47, 1689-95	2.9	65
365	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. <i>Orthodontics and Craniofacial Research</i> , <b>2004</b> , 7, 79-97	3	61
364	Biomechanical, histological and immunohistological studies of patellar cartilage in an ovine model of osteoarthritis induced by lateral meniscectomy. <i>Osteoarthritis and Cartilage</i> , <b>1999</b> , 7, 281-94	6.2	61

363	K R-Curve Behavior of Duplex Ceramics. <i>Journal of the American Ceramic Society</i> , <b>1991</b> , 74, 11-18	3.8	61
362	Damage tolerance of indirect restorative materials (including PICN) after simulated bur adjustments. <i>Dental Materials</i> , <b>2015</b> , 31, 684-94	5.7	60
361	Pressed ceramics onto zirconia. Part 2: indentation fracture and influence of cooling rate on residual stresses. <i>Dental Materials</i> , <b>2011</b> , 27, 1111-8	5.7	58
360	Prediction of mandibular bone remodelling induced by fixed partial dentures. <i>Journal of Biomechanics</i> , <b>2010</b> , 43, 1771-9	2.9	58
359	Adhesion of porcelain to titanium and a titanium alloy. <i>Journal of Dentistry</i> , <b>2003</b> , 31, 509-18	4.8	58
358	Physical properties of root cementum: Part I. A new method for 3-dimensional evaluation. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , <b>2001</b> , 120, 198-208	2.1	58
357	Tongue pressure patterns during water swallowing. <i>Dysphagia</i> , <b>2010</b> , 25, 11-9	3.7	57
356	Elasto-plastic deformation of glass-like carbons heat-treated at different temperatures. <i>Carbon</i> , <b>2001</b> , 39, 1525-1532	10.4	57
355	Fracture Toughness and Thermal Shock Behavior of Silicon Nitride/Boron Nitride Ceramics. <i>Journal of the American Ceramic Society</i> , <b>1992</b> , 75, 67-70	3.8	57
354	Multiscale design of surface morphological gradient for osseointegration. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2013</b> , 20, 387-97	4.1	56
353	Thermal Shock Behavior of Duplex Ceramics. <i>Journal of the American Ceramic Society</i> , <b>1991</b> , 74, 19-24	3.8	56
352	Modelling of fracture behaviour in biomaterials. <i>Biomaterials</i> , <b>2007</b> , 28, 1317-26	15.6	55
351	Relationship between Fracture Toughness and Phase Assemblage in Mg-PSZ. <i>Journal of the American Ceramic Society</i> , <b>1994</b> , 77, 571-579	3.8	55
350	Biomechanics of oral mucosa. <i>Journal of the Royal Society Interface</i> , <b>2015</b> , 12, 20150325	4.1	54
349	Restoration of non-carious cervical lesions Part II. Restorative material selection to minimise fracture. <i>Dental Materials</i> , <b>2007</b> , 23, 1562-9	5.7	54
348	A micro-mechanics model of dentin mechanical properties. <i>Biomaterials</i> , <b>2004</b> , 25, 5081-90	15.6	54
347	Transformation zone shape in ceria-partially-stabilized zirconia. <i>Acta Metallurgica</i> , <b>1988</b> , 36, 955-962		54
346	Impact of oral fluids on dental ceramics: what is the clinical relevance?. <i>Dental Materials</i> , <b>2014</b> , 30, 33-42	5.7	53

345	Thermally induced fracture for core-veneered dental ceramic structures. <i>Acta Biomaterialia</i> , <b>2013</b> , 9, 8394-402	10.8	53
344	Ultrastructure of dentine carious lesions. <i>Archives of Oral Biology</i> , <b>2008</b> , 53, 124-32	2.8	53
343	Regulation of reactionary dentin formation by odontoblasts in response to polymicrobial invasion of dentin matrix. <i>Bone</i> , <b>2012</b> , 50, 265-75	4.7	52
342	Crack-Tip-Bridging Stresses in Ceramic Materials. <i>Journal of the American Ceramic Society</i> , <b>1991</b> , 74, 1828-1832	5.8	52
341	Influence of Thermal Decomposition on the Mechanical Properties of Magnesia-Stabilized Cubic Zirconia. <i>Journal of the American Ceramic Society</i> , <b>1983</b> , 66, 358-362	3.8	52
340	Microscopic observations of abrasive wear of polycrystalline alumina. <i>Wear</i> , <b>1975</b> , 35, 185-189	3.5	52
339	Influence of veneer and cyclic loading on failure behavior of lithium disilicate glass-ceramic molar crowns. <i>Dental Materials</i> , <b>2014</b> , 30, 164-71	5.7	51
338	Nanoindentation creep behavior of human enamel. <i>Journal of Biomedical Materials Research - Part A</i> , <b>2009</b> , 91, 352-9	5.4	51
337	On the critical parameters that regulate the deformation behaviour of tooth enamel. <i>Biomaterials</i> , <b>2008</b> , 29, 2697-703	15.6	51
336	Effect of tooth bleaching agents on protein content and mechanical properties of dental enamel. <i>Acta Biomaterialia</i> , <b>2015</b> , 20, 120-128	10.8	50
335	Characterising the micro-mechanical behaviour of the carious dentine of primary teeth using nano-indentation. <i>Journal of Biomechanics</i> , <b>2005</b> , 38, 1535-42	2.9	50
334	Towards automated 3D finite element modeling of direct fiber reinforced composite dental bridge. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , <b>2005</b> , 74, 520-8	3.5	50
333	Evaluating acrylic and glass-ionomer cement strength using the biaxial flexure test. <i>Biomaterials</i> , <b>2001</b> , 22, 1583-90	15.6	50
332	Influence of thickness and substrate on the hardness and deformation of TiN films. <i>Thin Solid Films</i> , <b>1995</b> , 270, 283-288	2.2	50
331	Microstructural Evolution in Ca-PSZ and the Room-Temperature Instability of Tetragonal ZrO <sub>2</sub> . <i>Journal of the American Ceramic Society</i> , <b>1987</b> , 70, 214-220	3.8	50
330	Effect of microstructure upon elastic behaviour of human tooth enamel. <i>Journal of Biomechanics</i> , <b>2009</b> , 42, 1075-80	2.9	49
329	Quantitative analysis of the mineral content of sound and carious primary dentine using BSE imaging. <i>Archives of Oral Biology</i> , <b>2004</b> , 49, 99-107	2.8	49
328	Ceramic implants (Y-TZP): are they a viable alternative to titanium implants for the support of overdentures? A randomized clinical trial. <i>Clinical Oral Implants Research</i> , <b>2014</b> , 25, 1366-77	4.8	48

327	Some observations of overlapping interacting cracks. <i>Engineering Fracture Mechanics</i> , <b>1978</b> , 10, 299-304	4.2	48
326	Influence of structural hierarchy on the fracture behaviour of tooth enamel. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , <b>2015</b> , 373,	3	47
325	Determination of viscoelastic-plastic material parameters of biomaterials by instrumented indentation. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2009</b> , 2, 318-25	4.1	47
324	Limitation of Maximum Strength of Zirconia-Toughened Ceramics by Transformation Toughening Increment. <i>Journal of the American Ceramic Society</i> , <b>1985</b> , 68, C-97-C-99	3.8	46
323	A system of calibrating microtomography for use in caries research. <i>Caries Research</i> , <b>2009</b> , 43, 314-21	4.2	45
322	XRD2 micro-diffraction analysis of the interface between Y-TZP and veneering porcelain: role of application methods. <i>Dental Materials</i> , <b>2010</b> , 26, 545-52	5.7	45
321	Measuring intraoral pressure: adaptation of a dental appliance allows measurement during function. <i>Dysphagia</i> , <b>2008</b> , 23, 237-43	3.7	45
320	Hierarchical flexural strength of enamel: transition from brittle to damage-tolerant behaviour. <i>Journal of the Royal Society Interface</i> , <b>2012</b> , 9, 1265-74	4.1	44
319	Relationship between nanohardness and mineral content of artificial carious enamel lesions. <i>Caries Research</i> , <b>2008</b> , 42, 157-63	4.2	44
318	Influence of veneering porcelain thickness and cooling rate on residual stresses in zirconia molar crowns. <i>Dental Materials</i> , <b>2014</b> , 30, 271-80	5.7	43
317	A comparative study on complete and implant retained denture treatments: a biomechanics perspective. <i>Journal of Biomechanics</i> , <b>2015</b> , 48, 512-9	2.9	42
316	A novel pressure film approach for determining the force imparted by clear removable thermoplastic appliances. <i>Annals of Biomedical Engineering</i> , <b>2008</b> , 36, 335-41	4.7	42
315	Mechanical evaluation of cervical glass-ionomer restorations: 3D finite element study. <i>Journal of Dentistry</i> , <b>2007</b> , 35, 28-35	4.8	42
314	Biomechanical investigation into the role of the periodontal ligament in optimising orthodontic force: a finite element case study. <i>Archives of Oral Biology</i> , <b>2016</b> , 66, 98-107	2.8	41
313	The effect of fiber aspect ratio and volume loading on the flexural properties of flowable dental composite. <i>Dental Materials</i> , <b>2014</b> , 30, 1234-44	5.7	41
312	Influence of ultraviolet photofunctionalization on the surface characteristics of zirconia-based dental implant materials. <i>Dental Materials</i> , <b>2015</b> , 31, e14-24	5.7	40
311	Keratin-hydroxyapatite composites: biocompatibility, osseointegration, and physical properties in an ovine model. <i>Journal of Biomedical Materials Research - Part A</i> , <b>2010</b> , 95, 1084-95	5.4	40
310	Transmission electron microscope characterisation of molar-incisor-hypomineralisation. <i>Journal of Materials Science: Materials in Medicine</i> , <b>2008</b> , 19, 3187-92	4.5	40



- 309 Fibre reinforced composite dental bridge. Part II: Numerical investigation. *Biomaterials*, **2004**, 25, 4995-5006 40
- 308 One-step approach for hydroxyapatite-incorporated TiO<sub>2</sub> coating on titanium via a combined technique of micro-arc oxidation and electrophoretic deposition. *Applied Surface Science*, **2011**, 257, 7010-7018<sup>6,7</sup> 39
- 307 Measurement of the micro mechanical properties of sol-gel TiO<sub>2</sub> films. *Thin Solid Films*, **1998**, 332, 189-194 39
- 306 Preliminary in vitro assessment of erosive potential using the ultra-micro-indentation system. *Caries Research*, **2003**, 37, 218-24 4.2 39
- 305 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 2.7 39
- 304 A comparative mechanical and bone remodelling study of all-ceramic posterior inlay and onlay fixed partial dentures. *Journal of Dentistry*, **2012**, 40, 48-56 4.8 38
- 303 Influence of the bonder on the adhesion of porcelain to machined titanium as determined by the strain energy release rate. *Dental Materials*, **2007**, 23, 822-8 5.7 38
- 302 Mandibular stiffness in humans: numerical predictions. *Journal of Biomechanics*, **2006**, 39, 1903-13 2.9 38
- 301 Influence of veneer application on fracture behavior of lithium-disilicate-based ceramic crowns. *Dental Materials*, **2012**, 28, 653-60 5.7 37
- 300 Residual stresses in Y-TZP crowns due to changes in the thermal contraction coefficient of veneers. *Dental Materials*, **2013**, 29, 594-601 5.7 37
- 299 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 3.7 37
- 298 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, 168-76; quiz 260 2.1 37
- 297 Semiclosed-Cell Mullite Foams: Preparation and Macro- and Micromechanical Characterization. *Journal of the American Ceramic Society*, **1999**, 82, 961-968 3.8 37
- 296 Elastic-plastic characterization of thin films with spherical indentation. *Thin Solid Films*, **1992**, 220, 289-294 3.2 37
- 295 Influence of hydration and mechanical characterization of carious primary dentine using an ultra-micro indentation system (UMIS). *European Journal of Oral Sciences*, **2004**, 112, 231-6 2.3 36
- 294 The contribution of proteoglycans to the mechanical behavior of mineralized tissues. *Journal of the Mechanical Behavior of Biomedical Materials*, **2014**, 38, 91-104 4.1 35
- 293 Linking the clinical presentation of molar-incisor hypomineralisation to its mineral density. *International Journal of Paediatric Dentistry*, **2010**, 20, 353-60 3.1 34
- 292 Projectile penetration into ballistic gelatin. *Journal of the Mechanical Behavior of Biomedical Materials*, **2014**, 29, 385-92 4.1 33

291	A comparison of fit of CNC-milled titanium and zirconia frameworks to implants. <i>Clinical Implant Dentistry and Related Research</i> , <b>2012</b> , 14 Suppl 1, e20-9	3.9	33
290	Structural integrity of enamel: experimental and modeling. <i>Journal of Dental Research</i> , <b>2009</b> , 88, 529-33	8.1	33
289	Nanoindentation-based study of the mechanical behavior of bulk supercrystalline ceramic-organic nanocomposites. <i>Journal of the European Ceramic Society</i> , <b>2019</b> , 39, 3247-3256	6	32
288	Shape Optimization for Additive Manufacturing of Removable Partial Dentures--A New Paradigm for Prosthetic CAD/CAM. <i>PLoS ONE</i> , <b>2015</b> , 10, e0132552	3.7	32
287	Cracking of porcelain surfaces arising from abrasive grinding with a dental air turbine. <i>Journal of Prosthodontics</i> , <b>2011</b> , 20, 613-20	3.9	32
286	Wear behaviour of dental enamel at the nanoscale with a sharp and blunt indenter tip. <i>Wear</i> , <b>2009</b> , 266, 60-68	3.5	32
285	Characterization of a novel calibration method for mineral density determination of dentine by X-ray micro-tomography. <i>Analyst, The</i> , <b>2009</b> , 134, 72-9	5	32
284	Energy absorption characterization of human enamel using nanoindentation. <i>Journal of Biomedical Materials Research - Part A</i> , <b>2007</b> , 81, 484-92	5.4	32
283	Giant pop-ins and amorphization in germanium during indentation. <i>Journal of Applied Physics</i> , <b>2007</b> , 101, 043524	2.5	32
282	X-ray microdiffraction, TEM characterization and texture analysis of human dentin and enamel. <i>Journal of Microscopy</i> , <b>2013</b> , 251, 144-53	1.9	31
281	Calculation of contraction stresses in dental composites by analysis of crack propagation in the matrix surrounding a cavity. <i>Dental Materials</i> , <b>2009</b> , 25, 543-50	5.7	31
280	Mandibular single-implant overdentures: a review with surgical and prosthodontic perspectives of a novel approach. <i>Clinical Oral Implants Research</i> , <b>2009</b> , 20, 356-65	4.8	31
279	Crack formation mechanisms during micro and macro indentation of diamond-like carbon coatings on elastic-plastic substrates. <i>Thin Solid Films</i> , <b>1998</b> , 332, 180-184	2.2	31
278	Micromechanical property recovery of human carious dentin achieved with colloidal nano-beta-tricalcium phosphate. <i>Journal of Dental Research</i> , <b>2008</b> , 87, 233-7	8.1	31
277	Comparison of the microstructure and phase stability of as-cast, CAD/CAM and powder metallurgy manufactured Co-Cr dental alloys. <i>Dental Materials</i> , <b>2015</b> , 31, e306-15	5.7	30
276	Does high level youth sports participation increase the risk of femoroacetabular impingement? A review of the current literature. <i>Pediatric Rheumatology</i> , <b>2016</b> , 14, 16	3.5	30
275	A novel polymer infiltrated ceramic for dental simulation. <i>Journal of Materials Science: Materials in Medicine</i> , <b>2011</b> , 22, 1639-43	4.5	30
274	Laser ultrasonic surface wave dispersion technique for non-destructive evaluation of human dental enamel. <i>Optics Express</i> , <b>2009</b> , 17, 15592-607	3.3	30

273	Mechanical and structural modification of CR-39 polymer surface by 50-keV hydrogen and argon ion implantation. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>1997</b> , 127-128, 698-701	1.2	30
272	Nanoindentation response of PEEK modified by mesh-assisted plasma immersion ion implantation. <i>Surface and Coatings Technology</i> , <b>2007</b> , 201, 7961-7969	4.4	30
271	The biomechanical modelling of non-ballistic skin wounding: blunt-force injury. <i>Forensic Science, Medicine, and Pathology</i> , <b>2008</b> , 4, 33-9	1.5	30
270	Physical properties of root cementum: part 2. Effect of different storage methods. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , <b>2003</b> , 124, 561-70	2.1	30
269	Hertzian contact response and damage tolerance of dental ceramics. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2014</b> , 34, 124-33	4.1	29
268	Interfacial fracture toughness between bovine cortical bone and cements. <i>Biomaterials</i> , <b>2003</b> , 24, 1159-66	6.6	29
267	Wear behavior of human enamel against lithium disilicate glass ceramic and type III gold. <i>Journal of Prosthetic Dentistry</i> , <b>2014</b> , 112, 1399-405	4	28
266	A comparative study between crack analysis and a mechanical test for assessing the polymerization stress of restorative composites. <i>Dental Materials</i> , <b>2012</b> , 28, 632-41	5.7	28
265	Correlation of mineral density and elastic modulus of natural enamel white spot lesions using X-ray microtomography and nanoindentation. <i>Acta Biomaterialia</i> , <b>2010</b> , 6, 4553-9	10.8	28
264	Ion implantation of low melting point metals into sapphire. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>1987</b> , 19-20, 805-808	1.2	28
263	Influence of water, loading rate and bonder on the adhesion of porcelain to titanium. <i>Journal of Dentistry</i> , <b>2006</b> , 34, 485-90	4.8	27
262	Simple method and critical comparison of frame compliance and indenter area function for nanoindentation. <i>Journal of Materials Research</i> , <b>2004</b> , 19, 3490-3502	2.5	27
261	BoneQ responses to different designs of implant-supported fixed partial dentures. <i>Biomechanics and Modeling in Mechanobiology</i> , <b>2015</b> , 14, 403-11	3.8	26
260	Relationship between growth, maturation and musculoskeletal conditions in adolescents: a systematic review. <i>British Journal of Sports Medicine</i> , <b>2018</b> , 52, 1246-1252	10.3	26
259	Sensitivity analysis of bi-layered ceramic dental restorations. <i>Dental Materials</i> , <b>2012</b> , 28, e6-14	5.7	26
258	Fractured zirconia implants and related implant designs: scanning electron microscopy analysis. <i>Clinical Oral Implants Research</i> , <b>2013</b> , 24, 592-7	4.8	26
257	Influence of occlusal geometry on ceramic crown fracture; role of cusp angle and fissure radius. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2011</b> , 4, 1057-66	4.1	26
256	Contraction stresses in dental composites adjacent to and at the bonded interface as measured by crack analysis. <i>Acta Biomaterialia</i> , <b>2011</b> , 7, 417-23	10.8	26

255	Observations and simple fracture mechanics analysis of indentation fracture delamination of TiN films on silicon. <i>Journal of Adhesion Science and Technology</i> , <b>1994</b> , 8, 611-624	2	26
254	TONGUEBALATE INTERACTIONS DURING SWALLOWING. <i>Journal of Texture Studies</i> , <b>2011</b> , 42, 95-102	3.6	25
253	Occlusal geometrical considerations in all-ceramic pre-molar crown failure testing. <i>Dental Materials</i> , <b>2011</b> , 27, 1127-34	5.7	25
252	Investigation of the elastic modulus of thin films using simple biaxial bending techniques. <i>Thin Solid Films</i> , <b>1997</b> , 308-309, 304-309	2.2	25
251	Characterization of mechanical properties of VO <sub>2</sub> thin films on sapphire and silicon by ultra-microindentation. <i>Thin Solid Films</i> , <b>1999</b> , 343-344, 134-137	2.2	25
250	Survival-rate analysis of surface treated dental zirconia (Y-TZP) ceramics. <i>Journal of Materials Science: Materials in Medicine</i> , <b>2014</b> , 25, 2255-64	4.5	24
249	Investigation of mucosa-induced residual ridge resorption under implant-retained overdentures and complete dentures in the mandible. <i>International Journal of Oral and Maxillofacial Implants</i> , <b>2015</b> , 30, 657-66	2.8	24
248	The effect of friction on indenter force and pile-up in numerical simulations of bone nanoindentation. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2011</b> , 4, 1554-8	4.1	24
247	Scratch deformation behaviour of alumina under a sharp indenter. <i>Journal of the European Ceramic Society</i> , <b>1997</b> , 17, 91-100	6	24
246	Influence of tooth removal on mandibular bone response to mastication. <i>Archives of Oral Biology</i> , <b>2008</b> , 53, 1129-37	2.8	24
245	Relationship between laser fluorescence and enamel hypomineralisation. <i>Journal of Dentistry</i> , <b>2008</b> , 36, 915-21	4.8	24
244	Further Studies on Environment-Sensitive Hardness and Machinability of Al <sub>2</sub> O <sub>3</sub> . <i>Journal of the American Ceramic Society</i> , <b>1975</b> , 58, 372-376	3.8	24
243	Topological design of all-ceramic dental bridges for enhancing fracture resistance. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , <b>2016</b> , 32, e02749	2.6	23
242	The role of proteoglycans in the nanoindentation creep behavior of human dentin. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2015</b> , 55, 264-270	4.1	23
241	Mechanical benefits of conservative restoration for dental fissure caries. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2016</b> , 53, 11-20	4.1	23
240	Adhesion determination of dental porcelain to zirconia using the Schwickerath test: strength vs. fracture energy approach. <i>Acta Biomaterialia</i> , <b>2014</b> , 10, 4861-4869	10.8	23
239	Descriptive study of the longevity of dental implant surgery drills. <i>Clinical Implant Dentistry and Related Research</i> , <b>2011</b> , 13, 244-54	3.9	23
238	Influence of implantation of heavy metallic ions on the mechanical properties of two polymers, polystyrene and polyethylene terephthalate. <i>Journal of Materials Research</i> , <b>1997</b> , 12, 1917-1926	2.5	23

237	On the design of dental resin-based composites: a micromechanical approach. <i>Acta Biomaterialia</i> , <b>2008</b> , 4, 165-72	10.8	23
236	Combined influences of mechanical properties and surface roughness on the tribological properties of amorphous carbon coatings. <i>Wear</i> , <b>2006</b> , 260, 62-74	3.5	23
235	Surface roughness: Its implications and inference with regards to ultra microindentation measurements of polymer mechanical properties. <i>Polymer Testing</i> , <b>2004</b> , 23, 501-507	4.5	23
234	A suitable base material for composite resin restorations: zinc oxide eugenol. <i>Journal of Dentistry</i> , <b>2010</b> , 38, 290-5	4.8	22
233	Moment-to-force characteristics of preactivated nickel-titanium and titanium-molybdenum alloy symmetrical T-loops. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , <b>2009</b> , 135, 757-63	2.1	22
232	Physical and metallurgical considerations of failures of soldered bars in bar attachment systems for implant overdentures: a review of the literature. <i>Journal of Prosthetic Dentistry</i> , <b>2006</b> , 96, 283-8	4	22
231	Effect of unloading strain rate on the elastic modulus of a viscoelastic solid determined by nanoindentation. <i>Journal of Materials Research</i> , <b>2006</b> , 21, 708-714	2.5	22
230	Acoustic emission and precision force-displacement observations of spherical indentations into TiN films on silicon. <i>Surface and Coatings Technology</i> , <b>1994</b> , 68-69, 598-602	4.4	22
229	Creep Deformation and the Grain-Boundary Resistivity of Tetragonal Zirconia Polycrystalline Materials. <i>Journal of the American Ceramic Society</i> , <b>1990</b> , 73, 2505-2507	3.8	22
228	Structural analysis of reactionary dentin formed in response to polymicrobial invasion. <i>Journal of Structural Biology</i> , <b>2013</b> , 181, 207-22	3.4	21
227	Finite element based bone remodeling and resonance frequency analysis for osseointegration assessment of dental implants. <i>Finite Elements in Analysis and Design</i> , <b>2011</b> , 47, 898-905	2.2	21
226	Multilayered carbon films for tribological applications. <i>Diamond and Related Materials</i> , <b>2003</b> , 12, 178-184	3.5	21
225	Effect of chromium interlayer on the shear bond strength between porcelain and pure titanium. <i>Dental Materials</i> , <b>2010</b> , 26, 793-8	5.7	20
224	Ultrastructural observations and growth of occluding crystals in carious dentine. <i>Acta Biomaterialia</i> , <b>2008</b> , 4, 1427-39	10.8	20
223	Clothing increases the risk of indirect ballistic fractures. <i>Journal of Orthopaedic Surgery and Research</i> , <b>2013</b> , 8, 42	2.8	19
222	Mechanical properties of dental tissues in dolphins (Cetacea: Delphinoidea and Inioidea). <i>Archives of Oral Biology</i> , <b>2013</b> , 58, 773-9	2.8	19
221	Influence of the indenter tip geometry and environment on the indentation modulus of enamel. <i>Journal of Materials Research</i> , <b>2009</b> , 24, 616-625	2.5	19
220	Comparison of mechanical behaviors of enamel rod and interrod regions in enamel. <i>Journal of Materials Research</i> , <b>2012</b> , 27, 448-456	2.5	19

219	The effect of zoledronic acid on the intrinsic material properties of healing bone: an indentation study. <i>Medical Engineering and Physics</i> , <b>2008</b> , 30, 843-7	2.4	19
218	Determination of elastic modulus of dentin by small spherical diamond indenters. <i>Dental Materials Journal</i> , <b>2001</b> , 20, 227-36	2.5	19
217	A fracture mechanics description of the microcracking about NiS inclusions in glass. <i>Journal of Non-Crystalline Solids</i> , <b>1980</b> , 38-39, 451-456	3.9	19
216	Effects of acid-alkali treatment on bioactivity and osteoinduction of porous titanium: An in vitro study. <i>Materials Science and Engineering C</i> , <b>2019</b> , 94, 200-210	8.3	19
215	A comparative study of new and current methods for dental micro-CT image denoising. <i>Dentomaxillofacial Radiology</i> , <b>2016</b> , 45, 20150302	3.9	18
214	Evaluating the efficiency of caries removal using an Er:YAG laser driven by fluorescence feedback control. <i>Archives of Oral Biology</i> , <b>2013</b> , 58, 603-10	2.8	18
213	Titanium versus zirconia implants supporting maxillary overdentures: three-dimensional finite element analysis. <i>International Journal of Oral and Maxillofacial Implants</i> , <b>2013</b> , 28, e198-208	2.8	18
212	Bone remodeling induced by dental implants of functionally graded materials. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , <b>2010</b> , 92, 430-8	3.5	18
211	In vitro demineralization of human enamel natural and abraded surfaces: a micromechanical and SEM investigation. <i>Journal of Dentistry</i> , <b>2009</b> , 37, 264-72	4.8	18
210	Indentation response and cracking of sub-micron silica films on a polymeric substrate. <i>Engineering Fracture Mechanics</i> , <b>1998</b> , 61, 93-105	4.2	18
209	Fibre reinforced composite dental bridge. Part I: Experimental investigation. <i>Biomaterials</i> , <b>2004</b> , 25, 4987-98	1.9	18
208	Interrelation among flaw resistance, KR-curve behavior and thermal shock strength degradation in ceramics. II. Experiment. <i>Journal of the European Ceramic Society</i> , <b>1991</b> , 8, 365-374	6	18
207	Grain-Size Dependence of Fracture Energy in Ceramics. <i>Journal of the American Ceramic Society</i> , <b>1982</b> , 65, C-14-C-16	3.8	18
206	Evidence that metallic proxies are unsuitable for assessing the mechanics of microwear formation and a new theory of the meaning of microwear. <i>Royal Society Open Science</i> , <b>2018</b> , 5, 171699	3.3	18
205	Bone morphological effects on post-implantation remodeling of maxillary anterior buccal bone: A clinical and biomechanical study. <i>Journal of Prosthodontic Research</i> , <b>2017</b> , 61, 393-402	4.3	17
204	Computational and clinical investigation on the role of mechanical vibration on orthodontic tooth movement. <i>Journal of Biomechanics</i> , <b>2017</b> , 60, 57-64	2.9	17
203	In-vitro wear of natural tooth surface opposed with zirconia reinforced lithium silicate glass ceramic after accelerated ageing. <i>Dental Materials</i> , <b>2018</b> , 34, 551-559	5.7	17
202	Differences in morphogenesis of 3D cultured primary human osteoblasts under static and microfluidic growth conditions. <i>Biomaterials</i> , <b>2014</b> , 35, 3208-19	15.6	17

201	A method to determine site-specific, anisotropic fracture toughness in biological materials. <i>Scripta Materialia</i> , <b>2012</b> , 66, 515-518	5.6	17
200	Development of a model mouth containing an artificial tongue to measure the release of volatile compounds. <i>Innovative Food Science and Emerging Technologies</i> , <b>2012</b> , 15, 96-103	6.8	17
199	Mandibular flexure and its significance on implant fixed prostheses: a review. <i>Journal of Prosthodontics</i> , <b>2012</b> , 21, 219-24	3.9	17
198	The all-ceramic, inlay supported fixed partial denture. Part 2. Fixed partial denture design: a finite element analysis. <i>Australian Dental Journal</i> , <b>2011</b> , 56, 302-11	2.3	17
197	Residual Stresses in Fabrication of Core-Veneered Ceramic Prostheses. <i>Advanced Materials Research</i> , <b>2010</b> , 97-101, 2241-2244	0.5	17
196	Nano-indentation characterisation of natural carious white spot lesions. <i>Caries Research</i> , <b>2010</b> , 44, 101-7	4.2	17
195	Evaluation of the strain energy release rate for the fracture of titanium-porcelain interfacial bonding. <i>Biomaterials</i> , <b>1997</b> , 18, 1553-7	15.6	17
194	Modelling of stress distribution and fracture in dental occlusal fissures. <i>Scientific Reports</i> , <b>2019</b> , 9, 4682	4.9	16
193	Biomechanical analysis of bone remodeling following mandibular reconstruction using fibula free flap. <i>Medical Engineering and Physics</i> , <b>2018</b> , 56, 1-8	2.4	16
192	Nondestructive characterization of bone tissue scaffolds for clinical scenarios. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2019</b> , 89, 150-161	4.1	16
191	Effect of autoclave induced low-temperature degradation on the adhesion energy between yttria-stabilized zirconia veneered with porcelain. <i>Dental Materials</i> , <b>2013</b> , 29, e263-70	5.7	16
190	Three dimensional quantification of mandibular bone remodeling using standard tessellation language registration based superimposition. <i>Clinical Oral Implants Research</i> , <b>2013</b> , 24, 1273-9	4.8	16
189	A comparison of space closure rates between preactivated nickel-titanium and titanium-molybdenum alloy T-loops: a randomized controlled clinical trial. <i>European Journal of Orthodontics</i> , <b>2012</b> , 34, 33-8	3.3	16
188	A novel in vitro approach to assess the fit of implant frameworks. <i>Clinical Oral Implants Research</i> , <b>2011</b> , 22, 658-63	4.8	16
187	Morphoscopic analysis of experimentally produced bony wounds from low-velocity ballistic impact. <i>Forensic Science, Medicine, and Pathology</i> , <b>2011</b> , 7, 322-32	1.5	16
186	Influence of chromium interlayer on the adhesion of porcelain to machined titanium as determined by the strain energy release rate. <i>Journal of Dentistry</i> , <b>2010</b> , 38, 648-54	4.8	16
185	Subsurface properties of laser peened 6061-T6 Al weldments. <i>Surface Engineering</i> , <b>2000</b> , 16, 116-121	2.6	16
184	Interrelation between Flaw Resistance, R-Curve Behavior, and Thermal Shock Strength Degradation in Ceramics. <i>Journal of the American Ceramic Society</i> , <b>1991</b> , 74, 2859-2868	3.8	16

183	Phase transformation induces plasticity with negligible damage in ceria-stabilized zirconia-based ceramics. <i>Acta Materialia</i> , <b>2020</b> , 183, 261-273	8.4	16
182	Composite polymerization stress as a function of specimen configuration assessed by crack analysis and finite element analysis. <i>Dental Materials</i> , <b>2013</b> , 29, 1026-33	5.7	15
181	Computational modeling of dynamic behaviors of human teeth. <i>Journal of Biomechanics</i> , <b>2015</b> , 48, 4214-20		15
180	The influence of opaque application methods on the bond strength and final shade of PFM restorations. <i>Journal of Dentistry</i> , <b>2010</b> , 38 Suppl 2, e143-9	4.8	15
179	Mechanical property characterization of a number of polymers using uniaxial compression and spherical tipped indentation tests. <i>Journal of Materials Science</i> , <b>1997</b> , 32, 4493-4500	4.3	15
178	Tongue contractions during speech may have led to the development of the bony geometry of the chin following the evolution of human language: a mechanobiological hypothesis for the development of the human chin. <i>Medical Hypotheses</i> , <b>2007</b> , 69, 20-4	3.8	15
177	PBII deposition of thick carbon coatings from a cathodic arc plasma. <i>Surface and Coatings Technology</i> , <b>2002</b> , 156, 143-148	4.4	15
176	Carbon coating of Ti-6Al-4V for reduced wear in combined impact and sliding applications. <i>Tribology International</i> , <b>2003</b> , 36, 873-882	4.9	15
175	Self-Limiting Hardness Changes in Laser Peened 6061-T6 Aluminium. <i>Surface Engineering</i> , <b>2001</b> , 17, 477-482		15
174	A Simple Method for Determination of the Elastic Modulus of Thin Films on a Substrate. <i>Materials Research Society Symposia Proceedings</i> , <b>1993</b> , 308, 177		15
173	Nanoscale pathways for human tooth decay - Central planar defect, organic-rich precipitate and high-angle grain boundary. <i>Biomaterials</i> , <b>2020</b> , 235, 119748	15.6	15
172	Torsion of a circular punch attached to an elastic half-space with a coating with periodically depth-varying elastic properties. <i>Archive of Applied Mechanics</i> , <b>2016</b> , 86, 1247-1254	2.2	15
171	Micro-CT analysis of naturally arrested brown spot enamel lesions. <i>Journal of Dentistry</i> , <b>2017</b> , 56, 105-114	14.8	14
170	The effect of margin thickness, degree of convergence and bonding interlayer on the marginal failure of glass-simulated all-ceramic crowns. <i>Acta Biomaterialia</i> , <b>2012</b> , 8, 4426-37	10.8	14
169	Finite element analysis suggests functional bone strain accounts for continuous post-eruptive emergence of teeth. <i>Archives of Oral Biology</i> , <b>2012</b> , 57, 1070-8	2.8	14
168	Analysis of interfacial fracture in dental restorations. <i>Dental Materials</i> , <b>2011</b> , 27, 1094-101	5.7	14
167	Nanoindentation-derived elastic modulus of an amorphous polymer and its sensitivity to load-hold period and unloading strain rate. <i>Journal of Materials Research</i> , <b>2008</b> , 23, 637-641	2.5	14
166	Adhesive strength and its improvement referring to the laminated-type mouthguard. <i>Dental Traumatology</i> , <b>2006</b> , 22, 205-14	4.5	14



165	Mechanical property characterization of a 9 mol% Ce-TZP ceramic material II. Flexural response. <i>Journal of the European Ceramic Society</i> , <b>1995</b> , 15, 1185-1192	6	14
164	Raman spectroscopic characterisation of resin-infiltrated hypomineralised enamel. <i>Analytical and Bioanalytical Chemistry</i> , <b>2015</b> , 407, 5661-71	4.4	13
163	Fracture behavior of inlay and onlay fixed partial dentures - An in-vitro experimental and XFEM modeling study. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2016</b> , 59, 279-290	4.1	13
162	Elemental and chemical characterization of dolphin enamel and dentine using X-ray and Raman microanalyzes (Cetacea: Delphinoidea and Inioidea). <i>Journal of Structural Biology</i> , <b>2014</b> , 185, 58-68	3.4	13
161	Mechanical heterogeneity of dentin at different length scales as determined by AFM phase contrast. <i>Micron</i> , <b>2012</b> , 43, 1364-71	2.3	13
160	Scanning electron microscopy observations of failures of implant overdenture bars: a case series report. <i>Clinical Implant Dentistry and Related Research</i> , <b>2010</b> , 12, 26-38	3.9	13
159	A comparative assessment of three approaches for ranking the adhesion of TiN coatings onto two steels. <i>Thin Solid Films</i> , <b>1997</b> , 308-309, 329-333	2.2	13
158	Experimental simulation of non-ballistic wounding by sharp and blunt punches. <i>Forensic Science, Medicine, and Pathology</i> , <b>2008</b> , 4, 212-20	1.5	13
157	Using oscillatory squeezing flow to measure the viscoelastic properties of dental composite resin cements during curing. <i>Rheologica Acta</i> , <b>2003</b> , 42, 118-122	2.3	13
156	Micro-Fourier rheometer: Inertial effects. <i>Rheologica Acta</i> , <b>1996</b> , 35, 410-416	2.3	13
155	Thermal shock of a titanium di-boride based composite. <i>Ceramics International</i> , <b>1990</b> , 16, 77-83	5.1	13
154	Comparison of K <sub>1c</sub> Values for Al <sub>2</sub> O <sub>3</sub> -ZrO <sub>2</sub> Composites Obtained from Notched-Beam and Indentation Strength Techniques. <i>Journal of the American Ceramic Society</i> , <b>1983</b> , 66, C-27-C-29	3.8	13
153	Wear-like features on natural fault surfaces. <i>Wear</i> , <b>1976</b> , 37, 63-68	3.5	13
152	In vivo effects of different orthodontic loading on root resorption and correlation with mechanobiological stimulus in periodontal ligament. <i>Journal of the Royal Society Interface</i> , <b>2019</b> , 16, 20190108 <sup>12</sup>	4.1	108 <sup>12</sup>
151	Quantitative characterization and micro-CT mineral mapping of natural fissural enamel lesions. <i>Journal of Dentistry</i> , <b>2016</b> , 46, 23-9	4.8	12
150	The all-ceramic, inlay supported fixed partial denture. Part 5. Extended finite element analysis validation. <i>Australian Dental Journal</i> , <b>2013</b> , 58, 434-41	2.3	12
149	Surface characteristics and microbial adherence ability of modified polymethylmethacrylate by fluoridated glass fillers. <i>Australian Dental Journal</i> , <b>2014</b> , 59, 482-9	2.3	12
148	Strain-rate stiffening of cortical bone: observations and implications from nanoindentation experiments. <i>Nanoscale</i> , <b>2014</b> , 6, 14863-71	7.7	12

147	Finite element analysis of a novel implant distribution to support maxillary overdentures. <i>International Journal of Oral and Maxillofacial Implants</i> , <b>2013</b> , 28, e1-10	2.8	12
146	Strain Distribution in a Kennedy Class I Implant Assisted Removable Partial Denture under Various Loading Conditions. <i>International Journal of Dentistry</i> , <b>2013</b> , 2013, 351279	1.9	12
145	Effect of surface treatments on adhesion of low-fusing porcelain to titanium as determined by strain energy release rate. <i>Dental Materials</i> , <b>2011</b> , 27, 1213-20	5.7	12
144	Biomechanical Response in Mandibular Bone due to Mastication Loading on 3-Unit Fixed Partial Dentures. <i>Journal of Dental Biomechanics</i> , <b>2010</b> , 2010, 902537		12
143	Temperature effects on the forces, moments and moment to force ratio of nickel-titanium and TMA symmetrical T-loops. <i>Angle Orthodontist</i> , <b>2008</b> , 78, 1035-42	2.6	12
142	Characterization of nanoindentation-induced residual stresses in human enamel by Raman microspectroscopy. <i>Analytical and Bioanalytical Chemistry</i> , <b>2007</b> , 389, 1185-92	4.4	12
141	Topical administration of the nitric oxide donor glyceryl trinitrate modifies the structural and biomechanical properties of ovine articular cartilage. <i>Osteoarthritis and Cartilage</i> , <b>2003</b> , 11, 872-8	6.2	12
140	Mechanical property characterization of 9 Mol% Ce-TZP ceramic material III. Fracture toughness. <i>Journal of the European Ceramic Society</i> , <b>1996</b> , 16, 545-551	6	12
139	An ultra-micro indentation investigation of aspects of the fracture process in particulate reinforced metal matrix composites. <i>Scripta Metallurgica Et Materialia</i> , <b>1994</b> , 31, 577-582		12
138	Acoustic Emission During Micro- and Macrocrack Growth in Mg-PSZ. <i>Journal of the American Ceramic Society</i> , <b>1991</b> , 74, 1922-1927	3.8	12
137	A preliminary investigation of the corrosion of a TiB <sub>2</sub> /BN/AlN composite during aluminium evaporation. <i>Ceramics International</i> , <b>1989</b> , 15, 375-382	5.1	12
136	Stability of Mg-PSZ in high temperature steam environment. <i>Journal of Materials Science Letters</i> , <b>1985</b> , 4, 848-850		12
135	Fracture modeling of brittle biomaterials by the phase-field method. <i>Engineering Fracture Mechanics</i> , <b>2020</b> , 224, 106752	4.2	12
134	Porcelain bonding to novel Co-Cr alloys: Influence of interfacial reactions on phase stability, plasticity and adhesion. <i>Dental Materials</i> , <b>2016</b> , 32, 1504-1512	5.7	12
133	Yielding behaviors of polymeric scaffolds with implications to tissue engineering. <i>Materials Letters</i> , <b>2016</b> , 184, 108-111	3.3	12
132	The Schwickerath adhesion test: A fracture mechanics analysis. <i>Dental Materials</i> , <b>2015</b> , 31, 986-91	5.7	11
131	Determination of oral mucosal Poisson's ratio and coefficient of friction from in-vivo contact pressure measurements. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , <b>2016</b> , 19, 357-65 <sup>2.1</sup>		11
130	Coordinate geometry method for capturing and evaluating crown preparation geometry. <i>Journal of Prosthetic Dentistry</i> , <b>2014</b> , 112, 481-7	4	11

129	A comparison between rib fracture patterns in peri- and post-mortem compressive injury in a piglet model. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2014</b> , 33, 67-75	4.1	11
128	Compressive rib fracture: peri-mortem and post-mortem trauma patterns in a pig model. <i>Legal Medicine</i> , <b>2013</b> , 15, 193-201	1.9	11
127	Comparison of three and four point bending evaluation of two adhesive bonding systems for glass-ceramic zirconia bi-layered ceramics. <i>Dental Materials</i> , <b>2017</b> , 33, 1004-1011	5.7	11
126	Removal of dentin non-collagenous structures results in the unraveling of microfibril bundles in collagen type I. <i>Connective Tissue Research</i> , <b>2017</b> , 58, 414-423	3.3	11
125	Finite element analysis of an implant-assisted removable partial denture. <i>Journal of Prosthodontics</i> , <b>2013</b> , 22, 550-555	3.9	11
124	Nano-scale sliding contact deformation behaviour of enamel under wet and dry conditions. <i>Journal of Materials Science: Materials in Medicine</i> , <b>2010</b> , 21, 1195-203	4.5	11
123	Instrumented indentation characterisation of mouth-guard materials. <i>Dental Materials</i> , <b>2002</b> , 18, 211-5	5.7	11
122	A novel pin-on-apparatus. <i>Wear</i> , <b>2003</b> , 254, 111-119	3.5	11
121	Immunolocalization and distribution of proteoglycans in carious dentine. <i>Australian Dental Journal</i> , <b>2016</b> , 61, 288-97	2.3	11
120	Investigation on masticatory muscular functionality following oral reconstruction - An inverse identification approach. <i>Journal of Biomechanics</i> , <b>2019</b> , 90, 1-8	2.9	10
119	Monolithic crowns fracture analysis: The effect of material properties, cusp angle and crown thickness. <i>Dental Materials</i> , <b>2020</b> , 36, 1038-1051	5.7	10
118	Effects of design parameters on fracture resistance of glass simulated dental crowns. <i>Dental Materials</i> , <b>2016</b> , 32, 373-84	5.7	10
117	Effect of core ceramic grinding on fracture behaviour of bilayered lithium disilicate glass-ceramic under two loading schemes. <i>Journal of Dentistry</i> , <b>2014</b> , 42, 1436-45	4.8	10
116	On the cyclic indentation behavior of crystalline silicon with a sharp tip. <i>Journal of Materials Research</i> , <b>2007</b> , 22, 2992-2997	2.5	10
115	Observation and numerical simulation of an elastic-plastic solid loaded by a spherical indenter. <i>Journal of Materials Research</i> , <b>2004</b> , 19, 3474-3483	2.5	10
114	Elasto-plastic deformation of silica glass and glassy carbons with different indenters. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , <b>2002</b> , 82, 2199-2205		10
113	Comparison of acoustic emission from pointed and spherical indentation of TiN films on silicon and sapphire. <i>Surface and Coatings Technology</i> , <b>1995</b> , 76-77, 528-533	4.4	10
112	Cyclic fatigue lifetime predictions of partially stabilized zirconia with crack resistance curve characteristics. <i>Journal of the European Ceramic Society</i> , <b>1993</b> , 11, 445-453	6	10

111	Dislocation generation beneath static and rolling contact with a sphere. <i>Wear</i> , <b>1978</b> , 48, 173-180	3.5	10
110	Thermal induced deflection of a porcelain-zirconia bilayer: Influence of cooling rate. <i>Dental Materials</i> , <b>2019</b> , 35, 574-584	5.7	10
109	Instrumented indentation for determination of mechanical properties of human cornea after ultraviolet-A crosslinking. <i>Journal of Biomedical Materials Research - Part A</i> , <b>2018</b> , 106, 1413-1420	5.4	9
108	Micromechanical characterization of prismless enamel in the tuatara, <i>Sphenodon punctatus</i> . <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2014</b> , 39, 210-7	4.1	9
107	Strain energy density approach for failure evaluation of occlusal loaded ceramic tooth crowns. <i>Theoretical and Applied Fracture Mechanics</i> , <b>2012</b> , 58, 44-50	3.7	9
106	Nanoindentation Derived Mechanical Properties of the Corneoscleral Rim of the Human Eye. <i>Key Engineering Materials</i> , <b>2014</b> , 606, 117-120	0.4	9
105	Micromechanical evaluation of mineralized multilayers. <i>Journal of Biomechanics</i> , <b>2008</b> , 41, 3414-8	2.9	9
104	Influence of Calcination Temperature on the Microstructure and Mechanical Properties of a Gel-Derived and Sintered 3 mol% Y-TZP Material. <i>Journal of the American Ceramic Society</i> , <b>1996</b> , 79, 1034-1040	2.8	9
103	A comparison of the mechanical properties of three glass-ionomer cements. <i>Dental Materials Journal</i> , <b>1994</b> , 13, 220-7	2.5	9
102	Thermal relief of stresses in sputtered refractory metals and compounds. <i>Surface and Coatings Technology</i> , <b>1991</b> , 49, 199-202	4.4	9
101	Stress-Strain Behavior of Alumina, Magnesia-Partially-Stabilized Zirconia, and Duplex Ceramics and Its Relevance for Flaw Resistance, KR-Curve Behavior, and Thermal Shock Behavior. <i>Journal of the American Ceramic Society</i> , <b>1992</b> , 75, 3058-3064	3.8	9
100	Compressive creep of SiC whisker-reinforced alumina. <i>Journal of the European Ceramic Society</i> , <b>1992</b> , 10, 317-326	6	9
99	Crack tip bridging stresses in alumina and duplex ceramics. <i>Journal of the European Ceramic Society</i> , <b>1992</b> , 9, 133-142	6	9
98	A deformation and fracture mechanics approach to the scoring and breaking of glass. <i>Journal of Non-Crystalline Solids</i> , <b>1980</b> , 38-39, 445-450	3.9	9
97	Dental abrasion as a cutting process. <i>Interface Focus</i> , <b>2016</b> , 6, 20160008	3.9	9
96	FTIR characterization of the setting reaction of biodentine. <i>Dental Materials</i> , <b>2018</b> , 34, 1645-1651	5.7	9
95	Size or hierarchical dependence of the elastic modulus of three ceramic-composite CAD/CAM materials. <i>Dental Materials</i> , <b>2019</b> , 35, 953-962	5.7	8
94	Patients' perspectives on zirconia and titanium implants with a novel distribution supporting maxillary and mandibular overdentures: a qualitative study. <i>Clinical Oral Implants Research</i> , <b>2014</b> , 25, 587-97	4.8	8

93	FEA evaluation of the resistance form of a premolar crown. <i>Journal of Prosthodontics</i> , <b>2013</b> , 22, 304-12	3.9	8
92	Microindentation measurements of glassy carbon implanted with high-energy titanium ions. <i>Surface and Coatings Technology</i> , <b>1998</b> , 103-104, 384-388	4.4	8
91	On the indentation contact area of a creeping solid during constant-strain-rate loading by a sharp indenter. <i>Journal of Materials Research</i> , <b>2007</b> , 22, 893-899	2.5	8
90	Stress-Strain Behavior of Duplex Ceramics: I, Observations. <i>Journal of the American Ceramic Society</i> , <b>1992</b> , 75, 1729-1736	3.8	8
89	Reversible Transformation and Elastic Anisotropy in Mg-ZrO <sub>2</sub> . <i>Journal of the American Ceramic Society</i> , <b>1989</b> , 72, 1530-1532	3.8	8
88	A simple basis for determination of the modulus and hydraulic conductivity of human ocular surface using nano-indentation. <i>Acta Biomaterialia</i> , <b>2017</b> , 50, 312-321	10.8	7
87	Why a zero CTE mismatch may be better for veneered Y-TZP structures. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2019</b> , 96, 261-268	4.1	7
86	Fluoride release, recharge and flexural properties of polymethylmethacrylate containing fluoridated glass fillers. <i>Australian Dental Journal</i> , <b>2014</b> , 59, 208-14	2.3	7
85	The all-ceramic, inlay supported fixed partial denture. Part 3. Experimental approach for validating the finite element analysis. <i>Australian Dental Journal</i> , <b>2012</b> , 57, 23-30	2.3	7
84	Simulation of multi-stage nonlinear bone remodeling induced by fixed partial dentures of different configurations: a comparative clinical and numerical study. <i>Biomechanics and Modeling in Mechanobiology</i> , <b>2017</b> , 16, 411-423	3.8	7
83	Laser ultrasonic evaluation of human dental enamel during remineralization treatment. <i>Biomedical Optics Express</i> , <b>2011</b> , 2, 345-55	3.5	7
82	A micro-mechanical evaluation of the effects of die hardener on die stone. <i>Dental Materials Journal</i> , <b>2010</b> , 29, 433-7	2.5	7
81	Noncontact, nondestructive elasticity evaluation of sound and demineralized human dental enamel using a laser ultrasonic surface wave dispersion technique. <i>Journal of Biomedical Optics</i> , <b>2009</b> , 14, 054046	3.5	7
80	Fatigue failures of bar-attachment brazed joints for implant-supported overdentures. <i>Engineering Fracture Mechanics</i> , <b>2007</b> , 74, 1148-1159	4.2	7
79	The effect of plasma immersion ion implantation on the contact pressure and composition of titanium nitride thin films. <i>Surface and Coatings Technology</i> , <b>2006</b> , 201, 396-400	4.4	7
78	Accuracy and reliability of a dynamic biomechanical skin measurement probe for the analysis of stiffness and viscoelasticity. <i>Physiological Measurement</i> , <b>2004</b> , 25, 97-105	2.9	7
77	Quasi-brittle behaviour of ceramics and its relevance for thermal shock. <i>Engineering Fracture Mechanics</i> , <b>1991</b> , 40, 871-877	4.2	7
76	A modular design strategy to integrate mechanotransduction concepts in scaffold-based bone tissue engineering. <i>Acta Biomaterialia</i> , <b>2020</b> , 118, 100-112	10.8	7

75	Effect of core ceramic grinding on fracture behaviour of bilayered zirconia veneering ceramic systems under two loading schemes. <i>Dental Materials</i> , <b>2016</b> , 32, 1453-1463	5.7	7
74	Micro-CT based modelling for characterising injection-moulded porous titanium implants. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , <b>2017</b> , 33, e02779	2.6	6
73	Three-dimensional characterization and distribution of fabrication defects in bilayered lithium disilicate glass-ceramic molar crowns. <i>Dental Materials</i> , <b>2017</b> , 33, e178-e185	5.7	6
72	Clinicians' Ability to Detect a Palpable Difference in Spinal Stiffness Compared With a Mechanical Device. <i>Journal of Manipulative and Physiological Therapeutics</i> , <b>2019</b> , 42, 89-95	1.3	6
71	Microcomputed Tomography Calibration Using Polymers and Minerals for Enamel Mineral Content Quantitation. <i>Medical Principles and Practice</i> , <b>2019</b> , 28, 247-255	2.1	6
70	Shear Strength and Interfacial Toughness Characterization of Sapphire-Epoxy Interfaces for Nacre-Inspired Composites. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 27322-27331	9.5	6
69	Efficacy of Fluoride Varnishes with Added Calcium Phosphate in the Protection of the Structural and Mechanical Properties of Enamel. <i>BioMed Research International</i> , <b>2017</b> , 2017, 7834905	3	6
68	Determining the complex modulus of alginate irreversible hydrocolloid dental material. <i>Dental Materials</i> , <b>2008</b> , 24, 1545-8	5.7	6
67	Measurement of the viscoelastic properties of bituminous materials using an oscillating needle technique. <i>Rheologica Acta</i> , <b>1999</b> , 38, 443-450	2.3	6
66	Interrelation among flaw resistance, KR-curve behavior and thermal shock strength degradation in ceramics. I. Theoretical considerations. <i>Journal of the European Ceramic Society</i> , <b>1991</b> , 8, 355-363	6	6
65	R-curve behaviour in a macro-defect-free cement paste. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , <b>1990</b> , 62, 347-361		6
64	The geometrical structure of interfaces in dental enamel: A FIB-STEM investigation. <i>Acta Biomaterialia</i> , <b>2020</b> , 104, 17-27	10.8	6
63	Development of transformation bands in ceria-stabilized-zirconia based composites during bending at room temperature. <i>Journal of the European Ceramic Society</i> , <b>2021</b> , 41, 691-705	6	6
62	Missing Surface Estimation Based on Modified Tikhonov Regularization: Application for Destroyed Dental Tissue. <i>IEEE Transactions on Image Processing</i> , <b>2018</b> ,	8.7	5
61	Validation of finite-element simulations with synchrotron radiography - A descriptive study of micromechanics in two-piece dental implants. <i>Heliyon</i> , <b>2018</b> , 4, e00524	3.6	5
60	Fractographic Analysis of a Split Tooth Presenting Radiographically as a Horizontal Root Fracture in an Unrestored Mandibular Second Molar. <i>Journal of Endodontics</i> , <b>2018</b> , 44, 304-311	4.7	5
59	Cracks formed by Vickers indentation adjacent to the interface in bonded dental ceramics with various marginal angles. <i>Dental Materials Journal</i> , <b>2011</b> , 30, 308-14	2.5	5
58	Modelling of ER squeeze films at low amplitude oscillations. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2009</b> , 161, 101-108	2.7	5

57	Computational Fracture Modelling in Bioceramic Structures. <i>Advanced Materials Research</i> , <b>2011</b> , 268-270, 853-856	0.5	5
56	Micromechanical Characterization of Electrophoretic-Deposited Green Films. <i>Journal of the American Ceramic Society</i> , <b>2004</b> , 82, 3521-3528	3.8	5
55	Anisotropic Ionic Conductivity Observed in Superplastically Deformed Yttria-Stabilized Zirconia/Alumina Composite. <i>Journal of the American Ceramic Society</i> , <b>1989</b> , 72, 1279-1281	3.8	5
54	Origin of macroscopic wear grooves generated during sliding friction experiments. <i>International Journal of Rock Mechanics and Mining Sciences</i> , <b>1975</b> , 12, 367-371		5
53	Synthesis of stabilized hydroxyapatite nanosuspensions for enamel caries remineralization. <i>Australian Dental Journal</i> , <b>2018</b> , 63, 356	2.3	5
52	Influence of ageing on glass and resin bonding of dental glass-ceramic veneer adhesion to zirconia: A fracture mechanics analysis and interpretation. <i>Acta Biomaterialia</i> , <b>2018</b> , 74, 454-463	10.8	4
51	Microstructure, phase content, and thermal stability of a cast CoCr dental alloy after porcelain sintering cycles using electron backscatter diffraction. <i>Journal of Materials Research</i> , <b>2015</b> , 30, 2188-2196	2.5	4
50	Validate Mandible Finite Element Model under Removable Partial Denture (RPD) with In Vivo Pressure Measurement. <i>Applied Mechanics and Materials</i> , <b>2014</b> , 553, 322-326	0.3	4
49	Influence of a tungsten metal conditioner on the adhesion and residual stress of porcelain bonded to cobalt-chromium alloy. <i>Journal of Prosthetic Dentistry</i> , <b>2014</b> , 112, 584-90	4	4
48	The all-ceramic, inlay supported fixed partial denture. Part 4. Fracture surface analyses of an experimental model, all-ceramic, inlay supported fixed partial denture. <i>Australian Dental Journal</i> , <b>2013</b> , 58, 141-7	2.3	4
47	Ultramicrohardness measurement of ion implanted alumina. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>1997</b> , 121, 335-339	1.2	4
46	Comparative assessment of hardening of demineralized dentin under lining materials using an ultramicroindentation system. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , <b>2007</b> , 83, 199-205	3.5	4
45	Toughened PSZ Ceramics-Their Role as Advanced Engine Components <b>1983</b> ,		4
44	Effect of surface treatments on the adhesion of self-adhesive resin cements to titanium. <i>Journal of Adhesive Dentistry</i> , <b>2013</b> , 15, 65-71	3	4
43	Mechanical failure of posterior teeth due to caries and occlusal wear- A modelling study. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2022</b> , 125, 104942	4.1	4
42	On fatigue failure prediction of prosthetic devices through XFEM analysis. <i>International Journal of Fatigue</i> , <b>2021</b> , 147, 106160	5	4
41	A fast and accurate dental micro-CT image denoising based on total variation modeling <b>2015</b> ,		3
40	Micromechanical Properties of Polyacrylamide Hydrogels Measured by Spherical Nanoindentation. <i>Key Engineering Materials</i> , <b>2014</b> , 606, 121-124	0.4	3

39	Computational biomechanics of bone responses to dental prostheses Osseointegration, remodeling and resorption. <i>IOP Conference Series: Materials Science and Engineering</i> , <b>2010</b> , 10, 012122	0.4	3
38	Ultra-micro indentation technique used for examination of mechanical properties close to an HIPed surface of silicon nitride. <i>Journal of the European Ceramic Society</i> , <b>1998</b> , 18, 879-890	6	3
37	A simple contact and fracture mechanics approach to tumble drum breakage. <i>International Journal of Mineral Processing</i> , <b>2000</b> , 59, 175-183		3
36	Deformation of ceria-stabilised tetragonal zirconia ceramics in scratch experiments with a sharp indenter. <i>Journal of the European Ceramic Society</i> , <b>1994</b> , 13, 11-23	6	3
35	Cyclic fatigue behaviour of eutectoid aged Mg-PSZ ceramics with processing flaws. <i>Journal of the European Ceramic Society</i> , <b>1993</b> , 12, 221-226	6	3
34	A time-dependent mechanobiology-based topology optimization to enhance bone growth in tissue scaffolds. <i>Journal of Biomechanics</i> , <b>2021</b> , 117, 110233	2.9	3
33	Effect of the Location of Dental Mini-Implants on Strain Distribution under Mandibular Kennedy Class I Implant-Retained Removable Partial Dentures. <i>International Journal of Dentistry</i> , <b>2021</b> , 2021, 6688521	1.9	3
32	Effects of buccal thickness augmentation on bone remodeling after maxillary anterior implantation. <i>Biomechanics and Modeling in Mechanobiology</i> , <b>2020</b> , 19, 133-145	3.8	3
31	Frictional coefficient during flossing of teeth. <i>Dental Materials</i> , <b>2018</b> , 34, 1727-1734	5.7	3
30	Characterization of inter-crystallite peptides in human enamel rods reveals contribution by the Y allele of amelogenin. <i>Journal of Structural Biology</i> , <b>2018</b> , 204, 26-37	3.4	3
29	A machine learning-based multiscale model to predict bone formation in scaffolds. <i>Nature Computational Science</i> , <b>2021</b> , 1, 532-541		3
28	Fractographic analysis of anterior bilayered ceramic crowns that failed by veneer chipping. <i>Quintessence International</i> , <b>2014</b> , 45, 369-76	2	3
27	Comparing Contact Pressure Induced by a Conventional Complete Denture and an Implant-Retained Overdenture. <i>Applied Mechanics and Materials</i> , <b>2014</b> , 553, 384-389	0.3	2
26	Self-reparability of glass-ionomer cements: an in vitro investigation. <i>European Journal of Oral Sciences</i> , <b>2011</b> , 119, 187-91	2.3	2
25	Monitoring natural frequency for osseointegration and bone remodeling induced by dental implants <b>2009</b> ,		2
24	Moments generated by simple V-bends in nickel titanium wires. <i>European Journal of Orthodontics</i> , <b>2011</b> , 33, 457-60	3.3	2
23	Fatigue tests of Ni-P amorphous alloy microcantilever beams		2
22	Significance of specimen size for the KR-curve behavior of quasi-brittle materials. <i>Journal of the European Ceramic Society</i> , <b>1994</b> , 13, 501-507	6	2



21	Indentation of the cornea: A Bi-layer contact problem. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2021</b> , 118, 104463	4.1	2
20	The Relationship of Mandibular Morphology with Residual Ridge Resorption Associated with Implant-Retained Overdentures. <i>International Journal of Prosthodontics</i> , <b>2016</b> , 29, 573-580	1.9	2
19	Influence of veneer pore defects on fracture behavior of bilayered lithium disilicate glass-ceramic crowns. <i>Dental Materials</i> , <b>2019</b> , 35, e83-e95	5.7	2
18	Fatigue degradation of bilayered ceramic structures under different biaxial loading schemes. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2020</b> , 104, 103651	4.1	1
17	The bulk compressive creep and recovery behavior of human dentine and resin-based dental materials. <i>Dental Materials</i> , <b>2020</b> , 36, 366-376	5.7	1
16	The effects of core material and cooling rate on fabrication defects in the veneer of bi-layered all-ceramic systems. <i>Ceramics International</i> , <b>2019</b> , 45, 15876-15882	5.1	1
15	Numerical Simulation of Biomechanical Behaviours in Novel Dental Restorations. <i>Applied Mechanics and Materials</i> , <b>2014</b> , 553, 327-331	0.3	1
14	Multiscale Bone Remodeling Prediction for Fully Porous-Coated (FPC) Dental Implant Supported Prosthesis. <i>Advanced Materials Research</i> , <b>2009</b> , 79-82, 2167-2170	0.5	1
13	Micro-computerised Tomography Optimisation for the Measurement of Bone Mineral Density around Titanium Dental Implants. <i>Journal of Biomechanical Science and Engineering</i> , <b>2010</b> , 5, 2-10	0.8	1
12	Aging under mechanical stress: first experiments and related simulations for a silver-based multilayer mirror <b>2004</b> ,		1
11	Bone remodeling following mandibular reconstruction using fibula free flap.. <i>Journal of Biomechanics</i> , <b>2022</b> , 133, 110968	2.9	1
10	The influence of yttria content on the microstructure, phase stability and mechanical properties of dental zirconia. <i>Ceramics International</i> , <b>2021</b> ,	5.1	1
9	Biomechanical investigation of impact induced rib fractures of a porcine infant surrogate model. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2016</b> , 62, 588-598	4.1	1
8	Efficacy of dental materials in terms of apparent mineral density restoration: composite resin, glass ionomer cement and infiltrant. <i>Composites Part C: Open Access</i> , <b>2021</b> , 100192	1.6	1
7	The influence of flame and furnace soldering method on the stress corrosion, fatigue resistance and fracture toughness of soldered bar attachment systems for implant overdentures. <i>Journal of the Royal Society of New Zealand</i> , <b>2020</b> , 50, 115-131	2	0
6	Design for minimizing fracture risk of all-ceramic cantilever dental bridge. <i>Bio-Medical Materials and Engineering</i> , <b>2015</b> , 26 Suppl 1, S19-25	1	0
5	Microstructural heterogeneity of the collagenous network in the loaded and unloaded periodontal ligament and its biomechanical implications. <i>Journal of Structural Biology</i> , <b>2021</b> , 213, 107772	3.4	0
4	Porous Titanium Implant and Micro-CT Based Characterization of Sub-Surface Morphology <b>2013</b> , 1579-1586		

- 3 Mechanical properties characterization of a viscoelastic solid using low-frequency large-amplitude oscillatory indentations with a sharp tip. *Journal of Materials Research*, **2008**, 23, 1557-1563 2.5
- 2 Ultrastructure of dentine carious lesions. *Australian Dental Journal*, **2007**, 52, S37-S37 2.3
- 1 Mechanical and finite element models of corneal keratoprotheses. *Advanced Engineering Research*, **2020**, 20, 350-359 0.3