Bart Van Meerbeek

List of Publications by Year in descending order

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61857 62479 7,151 130 43 80 citations h-index g-index papers 130 130 130 4876 docs citations times ranked citing authors all docs

#	Article	IF	CITATIONS
1	Systematic review of the chemical composition of contemporary dental adhesives. Biomaterials, 2007, 28, 3757-3785.	5.7	1,066
2	Bonding effectiveness of a new â€~multi-mode' adhesive to enamel and dentine. Journal of Dentistry, 2012, 40, 475-484.	1.7	293
3	Strength, toughness and aging stability of highly-translucent Y-TZP ceramics for dental restorations. Dental Materials, 2016, 32, e327-e337.	1.6	260
4	Academy of Dental Materials guidance on in vitro testing of dental composite bonding effectiveness to dentin/enamel using micro-tensile bond strength ($\hat{l}\frac{1}{4}$ TBS) approach. Dental Materials, 2017, 33, 133-143.	1.6	241
5	Is secondary caries with composites a material-based problem?. Dental Materials, 2015, 31, e247-e277.	1.6	234
6	Nano-controlled molecular interaction at adhesive interfaces for hard tissue reconstruction. Acta Biomaterialia, 2010, 6, 3573-3582.	4.1	208
7	Effectiveness and stability of silane coupling agent incorporated in â€universal' adhesives. Dental Materials, 2016, 32, 1218-1225.	1.6	156
8	Morphological field emission-SEM study of the effect of six phosphoric acid etching agents on human dentin. Dental Materials, 1996, 12, 262-271.	1.6	155
9	Chemical interaction mechanism of 10-MDP with zirconia. Scientific Reports, 2017, 7, 45563.	1.6	144
10	Antibacterial effect of bactericide immobilized in resin matrix. Dental Materials, 2009, 25, 424-430.	1.6	143
11	Trade-off between fracture resistance and translucency of zirconia and lithium-disilicate glass ceramics for monolithic restorations. Acta Biomaterialia, 2019, 91, 24-34.	4.1	138
12	From Buonocore's Pioneering Acid-Etch Technique to Self-Adhering Restoratives. A Status Perspective of Rapidly Advancing Dental Adhesive Technology. Journal of Adhesive Dentistry, 2020, 22, 7-34.	0.3	125
13	Influence of sintering conditions on low-temperature degradation of dental zirconia. Dental Materials, 2014, 30, 669-678.	1.6	123
14	Curing profile of bulk-fill resin-based composites. Journal of Dentistry, 2015, 43, 664-672.	1.7	121
15	Aging resistance of surface-treated dental zirconia. Dental Materials, 2015, 31, 182-194.	1.6	119
16	Microtensile Bond Strength and Interfacial Characterization of 11 Contemporary Adhesives Bonded to Bur-cut Dentin. Operative Dentistry, 2010, 35, 94-104.	0.6	118
17	Highly-translucent, strong and aging-resistant 3Y-TZP ceramics for dental restoration by grain boundary segregation. Acta Biomaterialia, 2015, 16, 215-222.	4.1	117
18	Crystallographic and morphological analysis of sandblasted highly translucent dental zirconia. Dental Materials, 2018, 34, 508-518.	1.6	112

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19	Bonding effectiveness of self-adhesive composites to dentin and enamel. Dental Materials, 2013, 29, 221-230.	1.6	102
20	Are one-step adhesives easier to use and better performing? Multifactorial assessment of contemporary one-step self-etching adhesives. Journal of Adhesive Dentistry, 2009, 11, 175-90.	0.3	100
21	Secondary caries: prevalence, characteristics, and approach. Clinical Oral Investigations, 2020, 24, 683-691.	1.4	94
22	Sandblasting may damage the surface of composite CAD–CAM blocks. Dental Materials, 2017, 33, e124-e135.	1.6	93
23	Effect of cation dopant radius on the hydrothermal stability of tetragonal zirconia: Grain boundary segregation and oxygen vacancy annihilation. Acta Materialia, 2016, 106, 48-58.	3.8	85
24	Functional monomer impurity affects adhesive performance. Dental Materials, 2015, 31, 1493-1501.	1.6	83
25	Laser surface texturing of zirconia-based ceramics for dental applications: A review. Materials Science and Engineering C, 2021, 123, 112034.	3.8	76
26	Curing mode affects bond strength of adhesively luted composite CAD/CAM restorations to dentin. Dental Materials, 2014, 30, 281-291.	1.6	73
27	Curing characteristics of flowable and sculptable bulk-fill composites. Clinical Oral Investigations, 2017, 21, 1201-1212.	1.4	72
28	Mechanical properties, aging stability and translucency of speed-sintered zirconia for chairside restorations. Dental Materials, 2020, 36, 959-972.	1.6	66
29	Impact of hydrophilicity and length of spacer chains on the bonding of functional monomers. Dental Materials, 2014, 30, e317-e323.	1.6	65
30	Biomechanical behavior of endodontically treated premolars using different preparation designs and CAD/CAM materials. Journal of Dentistry, 2017, 59, 54-61.	1.7	61
31	High-translucent yttria-stabilized zirconia ceramics are wear-resistant and antagonist-friendly. Dental Materials, 2019, 35, 1776-1790.	1.6	61
32	Immediate bonding effectiveness of contemporary composite cements to dentin. Clinical Oral Investigations, 2010, 14, 569-577.	1.4	60
33	Monomer elution in relation to degree of conversion for different types of composite. Journal of Dentistry, 2015, 43, 1448-1455.	1.7	60
34	Long-term elution of monomers from resin-based dental composites. Dental Materials, 2019, 35, 477-485.	1.6	59
35	Fracture toughness versus micro-tensile bond strength testing of adhesive–dentin interfaces. Dental Materials, 2013, 29, 635-644.	1.6	53
36	Composite cements benefit from light-curing. Dental Materials, 2014, 30, 292-301.	1.6	53

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37	Evaluation of cell responses toward adhesives with different photoinitiating systems. Dental Materials, 2015, 31, 916-927.	1.6	52
38	Importance of tetragonal phase in high-translucent partially stabilized zirconia for dental restorations. Dental Materials, 2020, 36, 491-500.	1.6	52
39	Dentin-smear remains at self-etch adhesive interface. Dental Materials, 2014, 30, 1147-1153.	1.6	50
40	Chemical interaction of glycero-phosphate dimethacrylate (GPDM) with hydroxyapatite and dentin. Dental Materials, 2018, 34, 1072-1081.	1.6	50
41	Should we be concerned about composite (nano-)dust?. Dental Materials, 2012, 28, 1162-1170.	1.6	48
42	Cytotoxicity and Bioactivity of Dental Pulp-Capping Agents towards Human Tooth-Pulp Cells: A Systematic Review of In-Vitro Studies and Meta-Analysis of Randomized and Controlled Clinical Trials. Materials, 2020, 13, 2670.	1.3	46
43	Lifetime estimation of zirconia ceramics by linear ageing kinetics. Acta Materialia, 2015, 92, 290-298.	3.8	45
44	Additively Manufactured Zirconia for Dental Applications. Materials, 2021, 14, 3694.	1.3	45
45	Effect of resin and photoinitiator on color, translucency and color stability of conventional and low-shrinkage model composites. Dental Materials, 2016, 32, 183-191.	1.6	44
46	Residual compressive surface stress increases the bending strength of dental zirconia. Dental Materials, 2017, 33, e147-e154.	1.6	44
47	Bacterial adhesion not inhibited by ion-releasing bioactive glass filler. Dental Materials, 2017, 33, 723-734.	1.6	41
48	Biofilm-induced changes to the composite surface. Journal of Dentistry, 2017, 63, 36-43.	1.7	40
49	Freshly-mixed and setting calcium-silicate cements stimulate human dental pulp cells. Dental Materials, 2018, 34, 797-808.	1.6	40
50	Impact of sandblasting on the flexural strength of highly translucent zirconia. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 115, 104268.	1.5	39
51	Degree of conversion and monomer elution of CQ/amine and TPO adhesives. Dental Materials, 2014, 30, 695-701.	1.6	36
52	Additive manufacturing of zirconia ceramics by material jetting. Journal of the European Ceramic Society, 2021, 41, 5292-5306.	2.8	35
53	3D volumetric displacement and strain analysis of composite polymerization. Dental Materials, 2015, 31, 453-461.	1.6	33
54	Interference of functional monomers with polymerization efficiency of adhesives. European Journal of Oral Sciences, 2016, 124, 204-209.	0.7	33

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55	3D-microleakage assessment of adhesive interfaces: Exploratory findings by μCT. Dental Materials, 2014, 30, 799-807.	1.6	31
56	A novel high sensitivity UPLC-MS/MS method for the evaluation of bisphenol A leaching from dental materials. Scientific Reports, 2018, 8, 6981.	1.6	31
57	Light irradiance through novel CAD–CAM block materials and degree of conversion of composite cements. Dental Materials, 2018, 34, 296-305.	1.6	31
58	In-vitro transdentinal diffusion of monomers from adhesives. Journal of Dentistry, 2018, 75, 91-97.	1.7	31
59	Rechargeable anti-microbial adhesive formulation containing cetylpyridinium chloride montmorillonite. Acta Biomaterialia, 2019, 100, 388-397.	4.1	31
60	Modified tricalcium silicate cement formulations with added zirconium oxide. Clinical Oral Investigations, 2017, 21, 895-905.	1.4	30
61	Limited interaction of a self-adhesive flowable composite with dentin/enamel characterized by TEM. Dental Materials, 2017, 33, 209-217.	1.6	29
62	Atomic level observation and structural analysis of phosphoric-acid ester interaction at dentin. Acta Biomaterialia, 2019, 97, 544-556.	4.1	29
63	Quick bonding using a universal adhesive. Clinical Oral Investigations, 2020, 24, 2837-2851.	1.4	29
64	Bioactivity potential of Portland cement in regenerative endodontic procedures: From clinic to lab. Dental Materials, 2019, 35, 1342-1350.	1.6	27
65	Mechanical properties–translucency–microstructure relationships in commercial monolayer and multilayer monolithic zirconia ceramics. Dental Materials, 2022, 38, 797-810.	1.6	27
66	Interfacial fracture toughness of aged adhesive–dentin interfaces. Dental Materials, 2015, 31, 462-472.	1.6	26
67	Correlative analysis of cement–dentin interfaces using an interfacial fracture toughness and micro-tensile bond strength approach. Dental Materials, 2016, 32, 1575-1585.	1.6	26
68	How effectively do hydraulic calcium-silicate cements re-mineralize demineralized dentin. Dental Materials, 2017, 33, 434-445.	1.6	26
69	Silane-coupling effect of a silane-containing self-adhesive composite cement. Dental Materials, 2020, 36, 914-926.	1.6	26
70	Simultaneous analysis of bisphenol A based compounds and other monomers leaching from resin-based dental materials by UHPLC-MS/MS. Journal of Separation Science, 2017, 40, 1063-1075.	1.3	25
71	Experimental tricalcium silicate cement induces reparative dentinogenesis. Dental Materials, 2018, 34, 1410-1423.	1.6	25
72	Temporal variability of global DNA methylation and hydroxymethylation in buccal cells of healthy adults: Association with air pollution. Environment International, 2018, 111, 301-308.	4.8	24

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73	Ultrastructure and bonding properties of tribochemical silica-coated zirconia. Dental Materials Journal, 2019, 38, 107-113.	0.8	24
74	Do Universal Adhesives Benefit from an Extra Bonding Layer?. Journal of Adhesive Dentistry, 2019, 21, 117-132.	0.3	24
75	Dental Implant Macroâ€Design Features Can Impact the Dynamics of Osseointegration. Clinical Implant Dentistry and Related Research, 2015, 17, 639-645.	1.6	23
76	Do collagen cross-linkers improve dentin's bonding receptiveness?. Dental Materials, 2018, 34, 1679-1689.	1.6	23
77	Bisphenol A as degradation product of monomers used in resin-based dental materials. Dental Materials, 2021, 37, 1020-1029.	1.6	23
78	Correlative micro-Raman/EPMA analysis of the hydraulic calcium silicate cement interface with dentin. Clinical Oral Investigations, 2016, 20, 1663-1673.	1.4	22
79	Short fibre-reinforced composite for extensive direct restorations: a laboratory and computational assessment. Clinical Oral Investigations, 2016, 20, 959-966.	1.4	20
80	Five-year clinical performance of a HEMA-free one-step self-etch adhesive in noncarious cervical lesions. Clinical Oral Investigations, 2014, 18, 1045-1052.	1.4	19
81	Luting of CAD/CAM ceramic inlays: DirectÂcomposite versus dual-cure lutingÂcement. Bio-Medical Materials and Engineering, 2015, 25, 279-288.	0.4	19
82	Cytotoxic effects of composite dust on human bronchial epithelial cells. Dental Materials, 2016, 32, 1482-1491.	1.6	19
83	Bonding to enamel using alternative Enamel Conditioner/etchants. Dental Materials, 2019, 35, 1415-1429.	1.6	19
84	Effect of Conditioning and Aging on the Bond Strength and Interfacial Morphology of Glass-ionomer Cement Bonded to Dentin. Journal of Adhesive Dentistry, 2015, 17, 141-6.	0.3	19
85	Zinc–Calcium–Fluoride Bioglass-Based Innovative Multifunctional Dental Adhesive with Thick Adhesive Resin Film Thickness. ACS Applied Materials & Samp; Interfaces, 2020, 12, 30120-30135.	4.0	18
86	Monomer release from direct and indirect adhesive restorations: A comparative in vitro study. Dental Materials, 2020, 36, 1275-1281.	1.6	18
87	Injectable phosphopullulan-functionalized calcium-silicate cement for pulp-tissue engineering: An in-vivo and ex-vivo study. Dental Materials, 2020, 36, 512-526.	1.6	17
88	Influence of Light Irradiation Through Zirconia on the Degree of Conversion of Composite Cements. Journal of Adhesive Dentistry, 2016, 18, 161-71.	0.3	17
89	Effect of nonâ€thermal atmospheric plasma on the dentinâ€surface topography and composition and on the bond strength of a universal adhesive. European Journal of Oral Sciences, 2018, 126, 53-65.	0.7	16
90	Multiparameter evaluation of acrylamide HEMA alternative monomers in 2-step adhesives. Dental Materials, 2021, 37, 30-47.	1.6	16

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91	Strain development in bulk-filled cavities of different depths characterized using a non-destructive acoustic emission approach. Dental Materials, 2017, 33, e165-e177.	1.6	15
92	Survival of human dental pulp cells after 4-week culture in human tooth model. Journal of Dentistry, 2019, 86, 33-40.	1.7	15
93	First Report of Filamentous Phages Isolated from Tunisian Orchards to Control Erwinia amylovora. Microorganisms, 2020, 8, 1762.	1.6	15
94	Effect of conditioning and 1†year aging on the bond strength and interfacial morphology of glass-ionomer cement bonded to dentin. Dental Materials, 2021, 37, 106-112.	1.6	15
95	Saturation reduces in-vitro leakage of monomers from composites. Dental Materials, 2018, 34, 579-586.	1.6	14
96	Four-year clinical evaluation of CAD/CAM indirect resin composite premolar crowns using 3D digital data: Discovering the causes of debonding. Journal of Prosthodontic Research, 2022, 66, 402-408.	1.1	14
97	Cytotoxic and genotoxic potential of respirable fraction of composite dust on human bronchial cells. Dental Materials, 2020, 36, 270-283.	1.6	13
98	Initial curing characteristics of composite cements under ceramic restorations. Journal of Prosthodontic Research, 2021, 65, 39-45.	1.1	13
99	MDP is effective for removing residual polycarboxylate temporary cement as an adhesion inhibitor. Dental Materials Journal, 2020, 39, 1087-1095.	0.8	13
100	The effect of water spray on the release of composite nano-dust. Clinical Oral Investigations, 2020, 24, 2403-2414.	1.4	12
101	Long-term elution of bisphenol A from dental composites. Dental Materials, 2021, 37, 1561-1568.	1.6	12
102	Filtration efficiency of surgical and FFP3 masks against composite dust. European Journal of Oral Sciences, 2020, 128, 233-240.	0.7	11
103	Preclinical effectiveness of an experimental tricalcium silicate cement on pulpal repair. Materials Science and Engineering C, 2020, 116, 111167.	3.8	10
104	Adhesively luted zirconia restorations: why and how?. Journal of Adhesive Dentistry, 2014, 16, 294.	0.3	10
105	Mini-interfacial fracture toughness as a new validated enamel-bonding effectiveness test. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 62, 446-455.	1.5	9
106	Reliability of an injection-moulded two-piece zirconia implant with PEKK abutment after long-term thermo-mechanical loading. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 110, 103967.	1.5	9
107	Optimizing glass-ceramic bonding incorporating new silane technology in an experimental universal adhesive formulation. Dental Materials, 2021, 37, 894-904.	1.6	9
108	Back to the multi-step adhesive system: A next-generation two-step system with hydrophobic bonding agent improves bonding effectiveness. Dental Materials Journal, 2021, 40, 928-933.	0.8	9

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109	Re-mineralizing dentin using an experimental tricalcium silicate cement with biomimetic analogs. Dental Materials, 2017, 33, 505-513.	1.6	8
110	Titanium implant functionalization with phosphateâ€containing polymers may favour in vivo osseointegration. Journal of Clinical Periodontology, 2017, 44, 950-960.	2.3	8
111	Phosphorylated Pullulan Coating Enhances Titanium Implant Osseointegration in a Pig Model. International Journal of Oral and Maxillofacial Implants, 2017, 32, 282-290.	0.6	8
112	Bisphenol A release from short-term degraded resin-based dental materials. Journal of Dentistry, 2022, 116, 103894.	1.7	8
113	No evidence for the growth-stimulating effect of monomers on cariogenic Streptococci. Clinical Oral Investigations, 2017, 21, 1861-1869.	1.4	7
114	Alumina toughened zirconia reinforced with equiaxed and elongated lanthanum hexa-aluminate precipitates. Journal of the European Ceramic Society, 2021, 41, 247-255.	2.8	7
115	Status of decontamination methods after using dentin adhesion inhibitors on indirect restorations: An integrative review of 19 publications. Japanese Dental Science Review, 2021, 57, 147-153.	2.0	7
116	Novel composite cement containing the anti-microbial compound CPC-Montmorillonite. Dental Materials, 2022, 38, 33-43.	1.6	7
117	Bond strength and cement-tooth interfacial characterization of self-adhesive composite cements. American Journal of Dentistry, 2017, 30, 205-211.	0.1	7
118	Development of self-adhesive pulp-capping agents containing a novel hydrophilic and highly polymerizable acrylamide monomer. Journal of Materials Chemistry B, 2020, 8, 5320-5329.	2.9	6
119	Combination of a silane coupling agent and resin primer reinforces bonding effectiveness to a CAD/CAM indirect resin composite block. Dental Materials Journal, 2021, 40, 1445-1452.	0.8	6
120	Polymerization efficiency affects interfacial fracture toughness of adhesives. Dental Materials, 2018, 34, 684-692.	1.6	5
121	Does the bonding effectiveness of a fiber post/resin composite benefit from mechanical or chemical treatment? Seven methods for saliva-contaminated surfaces. Journal of Prosthodontic Research, 2022, 66, 288-295.	1.1	5
122	Antibacterial Effect of Amino Acid–Silver Complex Loaded Montmorillonite Incorporated in Dental Acrylic Resin. Materials, 2021, 14, 1442.	1.3	4
123	Development of dental inspection method: nondestructive evaluation of a dentin–adhesive interface by acoustic emission. Journal of Prosthodontic Research, 2021, 65, 438-442.	1.1	3
124	Dentin conditioned with a metal salt-based conditioner. Dental Materials, 2022, 38, 554-567.	1.6	3
125	Do resin core build-ups obtain the benefits of higher bonding ability from direct or indirect technique?. Journal of Prosthodontic Research, 2021, 65, 565-572.	1.1	2
126	Experimental resin-modified calcium-silicate cement containing N-(2-hydroxyethyl) acrylamide monomer for pulp tissue engineering. Materials Science and Engineering C, 2021, 126, 112105.	3.8	2

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127	Development of dental inspection method: Nondestructive evaluation of an adhesive interface by ACTIVE acoustic emission. Journal of Prosthodontic Research, 2022, 66, 236-242.	1.1	2
128	Effect of tooth temperature on the dentin bonding durability of a self-curing adhesives: The discrepancy between the laboratory setting and inside the mouth. Dental Materials Journal, 2022, 41, 317-322.	0.8	2
129	Nanoindentation Mapping and Bond Strength Study of Adhesive–Dentin Interfaces. Advanced Materials Interfaces, 0, , 2101327.	1.9	2
130	The quasi-three-dimensional marginal leakage of full-coverage crowns: resin coating versus sodium hypochlorite treatment. International Journal of Prosthodontics, 2010, 23, 406-9.	0.7	2