Delia S Brauer

List of Publications by Year
in descending order

84 papers	3,936 citations	117625 34 h-index	128289 60 g-index
90 all docs	90 docs citations	90 times ranked	2888 citing authors

#	Article	IF	Citations
1	Glass as a biomaterial: strategies for optimising bioactive glasses for clinical applications. Comptes Rendus - Geoscience, 2022, 354, 185-197.	1.2	2
2	Crystallization study of solâ€“gel derived 13-93 bioactive glass powder. Journal of the European Ceramic Society, 2021, 41, 1695-1706.	5.7	17
3	Unravelling the dissolution mechanism of polyphosphate glasses by ³¹P NMR spectroscopy: ligand competition and reactivity of intermediate complexes. Dalton Transactions, 2021, 50, 3966-3978.	3.3	8
4	Fluorine loss determination in bioactive glasses by laserâ€induced breakdown spectroscopy (LIBS). International Journal of Applied Glass Science, 2021, 12, 213-221.	2.0	5
5	Deepening our understanding of bioactive glass crystallization using TEM and 3D nano-CT. Journal of the European Ceramic Society, 2021, 41, 4958-4969.	5.7	15
6	A modified glass ionomer cement to mediate dentine repair. Dental Materials, 2021, 37, 1307-1315.	3.5	9
7	Nano-imaging confirms improved apatite precipitation for high phosphate/silicate ratio bioactive glasses. Scientific Reports, 2021, 11, 19464.	3.3	3
8	Modification of silicophosphate glass composition, structure, and properties via crucible material and melting conditions. International Journal of Applied Glass Science, 2020, 11, 46-57.	2.0	25
9	Calorimetric approach to assess the apatite-forming capacity of bioactive glasses. Journal of Non-Crystalline Solids, 2020, 550, 120290.	3.1	2
10	Influence of low amounts of zinc or magnesium substitution on ion release and apatite formation of Bioglass 45S5. Journal of Materials Science: Materials in Medicine, 2020, 31, 86.	3.6	15
11	Mg or Zn for Ca substitution improves the sintering of bioglass 45S5. Scientific Reports, 2020, 10, 15964.	3.3	18
12	A review of<i>in vitro</i>cell culture testing methods for bioactive glasses and other biomaterials for hard tissue regeneration. Journal of Materials Chemistry B, 2020, 8, 10941-10953.	5.8	30
13	Tailoring the Mechanical Properties of Metaluminous Aluminosilicate Glasses by Phosphate Incorporation. Frontiers in Materials, 2020, 7, .	2.4	11
14	Influence of Vanadium on Optical and Mechanical Properties of Aluminosilicate Glasses. Frontiers in Materials, 2020, 7, .	2.4	17
15	Structural Role of Phosphate in Metaluminous Sodium Aluminosilicate Glasses As Studied by Solid State NMR Spectroscopy. Journal of Physical Chemistry B, 2020, 124, 2691-2701.	2.6	17
16	A review of acellular immersion tests on bioactive glassesâ€“â€“influence of medium on ion release and apatite formation. International Journal of Applied Glass Science, 2020, 11, 537-551.	2.0	25
17	Structure and in vitro dissolution of Mg and Sr containing borosilicate bioactive glasses for bone tissue engineering. Journal of Non-Crystalline Solids, 2020, 533, 119893.	3.1	24
18	Effect of poly(acrylic acid) architecture on setting and mechanical properties of glass ionomer cements. Dental Materials, 2020, 36, 377-386.	3.5	14

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19	New insights into the crystallization process of solâ€gelâ€“derived 45S5 bioactive glass. Journal of the American Ceramic Society, 2020, 103, 4234-4247.	3.8	28
20	Low Mg or Zn substitution for improved thermal properties of Bioglass 45S5. Materials Letters, 2019, 256, 126599.	2.6	11
21	Apatite formation of substituted Bioglass 45S5: SBF vs. Tris. Materials Letters, 2019, 257, 126760.	2.6	18
22	Sintering and concomitant crystallization of bioactive glasses. International Journal of Applied Glass Science, 2019, 10, 449-462.	2.0	44
23	A comparison of lithium-substituted phosphate and borate bioactive glasses for mineralised tissue repair. Dental Materials, 2019, 35, 919-927.	3.5	23
24	Glass ionomer bone cements based on magnesium-containing bioactive glasses. Biomedical Glasses, 2019, 5, 1-12.	2.4	1
25	In-vitro apatite formation capacity of a bioactive glass - containing toothpaste. Journal of Dentistry, 2018, 68, 51-58.	4.1	13
26	The structural role of alumina in alkali phosphosilicate glasses: a multinuclear solid state NMR study. Journal of Commonwealth Law and Legal Education, 2018, 59, 267-276.	0.5	5
27	High chloride content calcium silicate glasses. Physical Chemistry Chemical Physics, 2017, 19, 7078-7085.	2.8	25
28	Effects of Composites Containing Bioactive Glasses on Demineralized Dentin. Journal of Dental Research, 2017, 96, 999-1005.	5.2	86
29	Optimisation of lithium-substituted bioactive glasses to tailor cell response for hard tissue repair. Journal of Materials Science, 2017, 52, 8832-8844.	3.7	38
30	Effect of chloride ions in Tris buffer solution on bioactive glass apatite mineralization. International Journal of Applied Glass Science, 2017, 8, 438-449.	2.0	17
31	Sodium is not essential for high bioactivity of glasses. International Journal of Applied Glass Science, 2017, 8, 428-437.	2.0	34
32	The role of fluoride in the nanoheterogeneity of bioactive glasses. Journal of Commonwealth Law and Legal Education, 2017, 58, 180-186.	0.5	5
33	Well-Defined SiO₂ @P(EtOx-<i>stat</i> -EI) Core-Shell Hybrid Nanoparticles via Sol-Gel Processes. Macromolecular Rapid Communications, 2016, 37, 337-342.	3.9	12
34	Special Section of Papers presented at the Larry L. Hench Memorial Symposium on Bioactive Glasses at the Annual Meeting of the Glass & Optical Materials Division (GOMD) of the American Ceramic Society, held from 22nd to 26th May 2016 in Madison, Wisconsin, USA. Biomedical Glasses, 2016, 2, .	2.4	0
35	Sodium-free mixed alkali bioactive glasses. Biomedical Glasses, 2016, 2, .	2.4	14
36	Bioglass and Bioactive Glasses and Their Impact on Healthcare. International Journal of Applied Glass Science, 2016, 7, 423-434.	2.0	226

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37	Controlling the ion release from mixed alkali bioactive glasses by varying modifier ionic radii and molar volume. Journal of Materials Chemistry B, 2016, 4, 3121-3134.	5.8	79
38	Bioactive glasses with improved processing. Part 2. Viscosity and fibre drawing. Journal of Non-Crystalline Solids, 2016, 432, 130-136.	3.1	27
39	Influence of zinc and magnesium substitution on ion release from Bioglass 45S5 at physiological and acidic pH. Biomedical Glasses, 2015, 1, .	2.4	19
40	Therapeutic Ion-Releasing Bioactive Glass Ionomer Cements with Improved Mechanical Strength and Radiopacity. Frontiers in Materials, 2015, 2, .	2.4	25
41	Novel Highly Degradable Chloride Containing Bioactive Glasses. Biomedical Glasses, 2015, 1, .	2.4	11
42	Dissolution behavior and cell compatibility of alkali-free MgO-CaO-SrO-TiO2-P2O5 glasses for biomedical applications. Biomedical Glasses, 2015, 1, .	2.4	8
43	Influence of dissolution medium pH on ion release and apatite formation of BioglassÂ® 45S5. Materials Letters, 2015, 143, 279-282.	2.6	61
44	Bioactive Glassesâ€"Structure and Properties. Angewandte Chemie - International Edition, 2015, 54, 4160-4181.	13.8	283
45	Apatite formation of bioactive glasses is enhanced by low additions of fluoride but delayed in the presence of serum proteins. Materials Letters, 2015, 153, 143-147.	2.6	32
46	³¹P NMR characterisation of phosphate fragments during dissolution of calcium sodium phosphate glasses. Journal of Materials Chemistry B, 2015, 3, 1125-1134.	5.8	41
47	Bioactivity of Sodium Free Fluoride Containing Glasses and Glass-Ceramics. Materials, 2014, 7, 5470-5487.	2.9	38
48	Influence of cell culture medium composition on <i>in vitro</i> dissolution behavior of a fluorideâ€containing bioactive glass. Journal of Biomedical Materials Research - Part A, 2014, 102, 647-654.	4.0	45
49	Fluoride-containing bioactive glasses and BioglassÂ® 45S5 form apatite in low pH cell culture medium. Materials Letters, 2014, 119, 96-99.	2.6	28
50	Changes in structure and thermal properties with phosphate content of ternary calcium sodium phosphate glasses. Journal of Non-Crystalline Solids, 2014, 392-393, 31-38.	3.1	43
51	Novel alkali free bioactive fluorapatite glass ceramics. Journal of Non-Crystalline Solids, 2014, 402, 172-177.	3.1	34
52	â€˜Smartâ€™ acid-degradable zinc-releasing silicate glasses. Materials Letters, 2014, 126, 278-280.	2.6	28
53	Bioactive glasses with improved processing. Part 1. Thermal properties, ion release and apatite formation. Acta Biomaterialia, 2014, 10, 4465-4473.	8.3	77
54	Surface properties and ion release from fluoride-containing bioactive glasses promote osteoblast differentiation and mineralization in vitro. Acta Biomaterialia, 2013, 9, 5771-5779.	8.3	87

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55	Effects of magnesium for calcium substitution in P2O5â€“CaOâ€“TiO2 glasses. Journal of Non-Crystalline Solids, 2013, 380, 53-59.	3.1	35
56	Mixed alkali effects in BioglassÂ® 45S5. Journal of Non-Crystalline Solids, 2013, 376, 175-181.	3.1	71
57	Bactericidal strontium-releasing injectable bone cements based on bioactive glasses. Journal of the Royal Society Interface, 2013, 10, 20120647.	3.4	77
58	Influence of sodium content on the properties of bioactive glasses for use in air abrasion. Biomedical Materials (Bristol), 2013, 8, 065008.	3.3	35
59	Influence of strontium for calcium substitution in bioactive glasses on degradation, ion release and apatite formation. Journal of the Royal Society Interface, 2012, 9, 880-889.	3.4	150
60	Fluoride-containing bioactive glass-ceramics. Journal of Non-Crystalline Solids, 2012, 358, 1438-1442.	3.1	83
61	Multicomponent phosphate invert glasses with improved processing. Journal of Non-Crystalline Solids, 2012, 358, 1720-1723.	3.1	15
62	Influence of strontium substitution on structure and crystallisation of BioglassÂ® 45S5. Journal of Materials Chemistry, 2012, 22, 7395.	6.7	66
63	Multi-component bioactive glasses of varying fluoride content for treating dentin hypersensitivity. Dental Materials, 2012, 28, 168-178.	3.5	88
64	Fluoride-containing bioactive glasses: Fluoride loss during melting and ion release in tris buffer solution. Journal of Non-Crystalline Solids, 2011, 357, 3328-3333.	3.1	78
65	Predicting the bioactivity of glasses using the network connectivity or split network models. Journal of Non-Crystalline Solids, 2011, 357, 3884-3887.	3.1	154
66	Densityâ€“structure correlations in fluoride-containing bioactive glasses. Materials Chemistry and Physics, 2011, 130, 121-125.	4.0	35
67	Predicting the glass transition temperature of bioactive glasses from their molecular chemical composition. Acta Biomaterialia, 2011, 7, 3601-3605.	8.3	27
68	High phosphate content significantly increases apatite formation of fluoride-containing bioactive glasses. Acta Biomaterialia, 2011, 7, 1827-1834.	8.3	168
69	Nano- and micromechanical properties of dentine: Investigation of differences with tooth side. Journal of Biomechanics, 2011, 44, 1626-1629.	2.1	31
70	Benefits and drawbacks of zinc in glass ionomer bone cements. Biomedical Materials (Bristol), 2011, 6, 045007.	3.3	78
71	Fluoride-containing bioactive glasses: Effect of glass design and structure on degradation, pH and apatite formation in simulated body fluid. Acta Biomaterialia, 2010, 6, 3275-3282.	8.3	264
72	Mechanical properties of a degradable phosphate glass fibre reinforced polymer composite for internal fracture fixation. Materials Science and Engineering C, 2010, 30, 1003-1007.	7.3	27

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73	Tissueâ€specific calibration of extracellular matrix material properties by transforming growth factorâ€Î²2 and Runx2 in bone is required for hearing. EMBO Reports, 2010, 11, 765-771.	4.5	37
74	Effect of TiO2 addition on structure, solubility and crystallisation of phosphate invert glasses for biomedical applications. Journal of Non-Crystalline Solids, 2010, 356, 2626-2633.	3.1	75
75	Bioactive glass engineered coatings for Ti6Al4V alloys: Influence of strontium substitution for calcium on sintering behaviour. Journal of Non-Crystalline Solids, 2010, 356, 2583-2590.	3.1	56
76	Variations in human DEJ scallop size with tooth type. Journal of Dentistry, 2010, 38, 597-601.	4.1	20
77	Structure of fluoride-containing bioactive glasses. Journal of Materials Chemistry, 2009, 19, 5629.	6.7	151
78	Degradable phosphate glass fiber reinforced polymer matrices: mechanical properties and cell response. Journal of Materials Science: Materials in Medicine, 2008, 19, 121-127.	3.6	60
79	Effect of sterilization by gamma radiation on nano-mechanical properties of teeth. Dental Materials, 2008, 24, 1137-1140.	3.5	57
80	Solubility of glasses in the system P2O5â€"CaOâ€"MgOâ€"Na2Oâ€"TiO2: Experimental and modeling using artificial neural networks. Journal of Non-Crystalline Solids, 2007, 353, 263-270.	3.1	70
81	Fabrication andin vitro characterization of porous biodegradable composites based on phosphate glasses and oligolactide-containing polymer networks. Journal of Biomedical Materials Research - Part A, 2007, 80A, 410-420.	4.0	22
82	Effect of degradation rates of resorbable phosphate invert glasses onin vitro osteoblast proliferation. Journal of Biomedical Materials Research - Part A, 2006, 77A, 213-219.	4.0	39
83	Fluoride-Containing Bioactive Glasses. Advanced Materials Research, 0, 39-40, 299-304.	0.3	12
84	Chapter 3. Introduction to the Structure of Silicate, Phosphate and Borate Glasses. RSC Smart Materials, 0, , 61-88.	0.1	16