Edgar D Zanotto

List of Publications by Year
in descending order

331 papers	12,282 citations	26610 56 h-index	45285 90 g-index
349 all docs	349 docs citations	349 times ranked	6833 citing authors

#	Article	IF	Citations
1	Highly bioactive P2O5â€“Na2Oâ€“CaOâ€“SiO2 glass-ceramics. Journal of Non-Crystalline Solids, 2001, 292, 115-126.	1.5	460
2	Homogeneous crystal nucleation in silicate glasses: A 40 years perspective. Journal of Non-Crystalline Solids, 2006, 352, 2681-2714.	1.5	382
3	Understanding Glass through Differential Scanning Calorimetry. Chemical Reviews, 2019, 119, 7848-7939.	23.0	258
4	Updated definition of glass-ceramics. Journal of Non-Crystalline Solids, 2018, 501, 3-10.	1.5	248
5	Surface crystallization of silicate glasses: nucleation sites and kinetics. Journal of Non-Crystalline Solids, 2000, 274, 208-231.	1.5	229
6	Can glass stability parameters infer glass forming ability?. Journal of Non-Crystalline Solids, 2005, 351, 3296-3308.	1.5	227
7	The glassy state of matter: Its definition and ultimate fate. Journal of Non-Crystalline Solids, 2017, 471, 490-495.	1.5	201
8	Experimental tests of the classical nucleation theory for glasses. Journal of Non-Crystalline Solids, 1985, 74, 373-394.	1.5	177
9	Crystallization toughening of a model glass-ceramic. Acta Materialia, 2015, 86, 216-228.	3.8	155
10	Crystallization mechanism and properties of a blast furnace slag glass. Journal of Non-Crystalline Solids, 2000, 273, 64-75.	1.5	152
11	TEM and XRD study of early crystallization of lithium disilicate glasses. Journal of Non-Crystalline Solids, 2003, 331, 217-227.	1.5	140
12	BiosilicateÂ® â€” A multipurpose, highly bioactive glass-ceramic. In vitro, in vivo and clinical trials. Journal of Non-Crystalline Solids, 2016, 432, 90-110.	1.5	130
13	Bioactive and inert dental glassâ€ceramics. Journal of Biomedical Materials Research - Part A, 2017, 105, 619-639.	2.1	130
14	Isothermal and adiabatic nucleation in glass. Journal of Non-Crystalline Solids, 1987, 89, 361-370.	1.5	127
15	Internal residual stresses in glass-ceramics: A review. Journal of Non-Crystalline Solids, 2012, 358, 975-984.	1.5	126
16	In vitro osteogenesis on a highly bioactive glass-ceramic (BiosilicateÂ®). Journal of Biomedical Materials Research - Part A, 2007, 82A, 545-557.	2.1	124
17	Two Centuries of Glass Research: Historical Trends, Current Status, and Grand Challenges for the Future. International Journal of Applied Glass Science, 2014, 5, 313-327.	1.0	122
18	Predicting glass transition temperatures using neural networks. Acta Materialia, 2018, 159, 249-256.	3.8	120

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19	History and trends of bioactive glassâ€ceramics. Journal of Biomedical Materials Research - Part A, 2016, 104, 1231-1249.	2.1	119
20	Compositional and microstructural design of highly bioactive P2O5â€“Na2Oâ€“CaOâ€“SiO2 glass-ceramics. Acta Biomaterialia, 2012, 8, 321-332.	4.1	118
21	New large grain, highly crystalline, transparent glassâ€“ceramics. Journal of Non-Crystalline Solids, 2008, 354, 1721-1730.	1.5	110
22	Pressure dependence of viscosity. Journal of Chemical Physics, 2005, 122, 074511.	1.2	103
23	29Si MASâ€“NMR studies of Qn structural units in metasilicate glasses and their nucleating ability. Journal of Non-Crystalline Solids, 2000, 273, 8-18.	1.5	102
24	Nanocrystallization of fresnoite glass. I. Nucleation and growth kinetics. Journal of Non-Crystalline Solids, 2003, 330, 174-186.	1.5	102
25	Glass sintering with concurrent crystallization. Comptes Rendus Chimie, 2002, 5, 773-786.	0.2	97
26	Qn distribution in stoichiometric silicate glasses: thermodynamic calculations and 29Si high resolution NMR measurements. Journal of Non-Crystalline Solids, 2003, 325, 164-178.	1.5	96
27	Crystal nucleation in silicate glasses: the temperature and size dependence of crystal/liquid surface energy. Journal of Non-Crystalline Solids, 2000, 265, 105-112.	1.5	95
28	Surface crystallization kinetics in soda-lime-silica glasses. Journal of Non-Crystalline Solids, 1991, 129, 183-190.	1.5	91
29	Crystallization of glass-forming liquids: Maxima of nucleation, growth, and overall crystallization rates. Journal of Non-Crystalline Solids, 2015, 429, 24-32.	1.5	91
30	Does viscosity describe the kinetic barrier for crystal growth from the liquidus to the glass transition?. Journal of Chemical Physics, 2010, 133, 174701.	1.2	90
31	Glass-forming ability versus stability of silicate glasses. I. Experimental test. Journal of Non-Crystalline Solids, 2003, 320, 1-8.	1.5	86
32	Dynamic processes in a silicate liquid from above melting to below the glass transition. Journal of Chemical Physics, 2011, 135, 194703.	1.2	86
33	Model for sintering polydispersed glass particles. Journal of Non-Crystalline Solids, 2001, 279, 169-178.	1.5	85
34	Gel-derived SiO2â€“CaOâ€“Na2Oâ€“P2O5 bioactive powders: Synthesis and in vitro bioactivity. Materials Science and Engineering C, 2011, 31, 983-991.	3.8	85
35	Recent studies of internal and surface nucleation in silicate glasses. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2003, 361, 591-613.	1.6	84
36	Relationship between short-range order and ease of nucleation in Na2Ca2Si3O9, CaSiO3 and PbSiO3 glasses. Journal of Non-Crystalline Solids, 2000, 262, 191-199.	1.5	83

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37	Glass-forming ability versus stability of silicate glasses. II. Theoretical demonstration. Journal of Non-Crystalline Solids, 2003, 320, 9-20.	1.5	83
38	Do cathedral glasses flow?. American Journal of Physics, 1998, 66, 392-395.	0.3	81
39	Homogeneous nucleation versus glass transition temperature of silicate glasses. Journal of Non-Crystalline Solids, 2003, 321, 52-65.	1.5	80
40	A test of the HrubÃ¿ parameter to estimate glass-forming ability. Journal of Non-Crystalline Solids, 1997, 219, 182-186.	1.5	77
41	Thirty-year quest for structureâ€“nucleation relationships in oxide glasses. International Materials Reviews, 2015, 60, 376-391.	9.4	75
42	Critical assessment of DTAâ€“DSC methods for the study of nucleation kinetics in glasses. Journal of Non-Crystalline Solids, 2010, 356, 358-367.	1.5	73
43	Correlation between maximum crystal growth rate and glass transition temperature of silicate glasses. Journal of Non-Crystalline Solids, 2005, 351, 789-794.	1.5	67
44	A simple method to predict the nucleation mechanism in glass. Journal of Non-Crystalline Solids, 1991, 130, 220-221.	1.5	66
45	Metastable phases in lithium disilicate glasses. Journal of Non-Crystalline Solids, 1997, 219, 42-48.	1.5	66
46	Surface crystallization and texture in cordierite glasses. Journal of Non-Crystalline Solids, 2000, 273, 81-93.	1.5	64
47	DSC Method for Determining the Liquidus Temperature of Glassâ€Forming Systems. Journal of the American Ceramic Society, 2010, 93, 3757-3763.	1.9	64
48	A novel bioactive glass-ceramic for treating dentin hypersensitivity. Brazilian Oral Research, 2010, 24, 381-387.	0.6	64
49	The influence of phosphorus precursors on the synthesis and bioactivity of SiO2â€“CaOâ€“P2O5 solâ€“gel glasses and glassâ€–ceramics. Journal of Materials Science: Materials in Medicine, 2013, 24, 365-379.	1.7	62
50	Explainable Machine Learning Algorithms For Predicting Glass Transition Temperatures. Acta Materialia, 2020, 188, 92-100.	3.8	62
51	Re-examination of the temperature dependence of the classical nucleation rate: Homogeneous crystal nucleation in glass. Journal of Non-Crystalline Solids, 1989, 108, 99-108.	1.5	60
52	Mutant crystals in Na2OÂ·2CaOÂ·3SiO2 glasses. Journal of Non-Crystalline Solids, 2003, 331, 240-253.	1.5	60
53	Crystal nucleation in glass-forming liquids: Variation of the size of the â€œstructural unitsâ€•with temperature. Journal of Non-Crystalline Solids, 2016, 447, 35-44.	1.5	60
54	Kinetics and mechanisms of crystal growth and diffusion in a glass-forming liquid. Journal of Chemical Physics, 2004, 121, 8924-8928.	1.2	59

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55	How many non-crystalline solids can be made from all the elements of the periodic table?. Journal of Non-Crystalline Solids, 2004, 347, 285-288.	1.5	59
56	Bioactivity and cell proliferation in radiopaque gel-derived CaOâ€“P2O5â€“SiO2â€“ZrO2 glass and glassâ€“ceramic powders. Materials Science and Engineering C, 2015, 55, 436-447.	3.8	57
57	The effect of elastic stresses on the thermodynamic barrier for crystal nucleation. Journal of Non-Crystalline Solids, 2016, 432, 325-333.	1.5	57
58	Internal Residual Stresses in Sintered and Commercial Low Expansion Li2O-Al2O3-SiO2 Glass-Ceramics. Journal of the American Ceramic Society, 2011, 94, 1206-1214.	1.9	55
59	In vivo biological performance of a novel highly bioactive glassâ€ceramic (BiosilicateÂ®): A biomechanical and histomorphometric study in rat tibial defects. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2011, 97B, 139-147.	1.6	55
60	X-ray Absorption Fine Structure (XAFS) Studies of Oxide Glassesâ€”A 45-Year Overview. Materials, 2018, 11, 204.	1.3	55
61	Residual stresses in a soda-lime-silica glass-ceramic. Journal of Non-Crystalline Solids, 1996, 194, 297-304.	1.5	54
62	The nucleation mechanism of lithium dissilicate glass revisited. Journal of Non-Crystalline Solids, 1996, 202, 145-152.	1.5	54
63	Incorporation of bioactive glass in calcium phosphate cement: An evaluation. Acta Biomaterialia, 2013, 9, 5728-5739.	4.1	54
64	Glass Crystallization Research â€” A 36â€Year Retrospective. Part I, Fundamental Studies. International Journal of Applied Glass Science, 2013, 4, 105-116.	1.0	54
65	Solâ€“gel synthesis, structure, sintering and properties of bioactive and inert nano-apatiteâ€“zirconia glassâ€“ceramics. Ceramics International, 2015, 41, 11024-11045.	2.3	54
66	Do cathedral glasses flow?â€”Additional remarks. American Journal of Physics, 1999, 67, 260-262.	0.3	53
67	Crystal growth kinetics in cordierite and diopside glasses in wide temperature ranges. Journal of Non-Crystalline Solids, 2008, 354, 5386-5394.	1.5	53
68	Effect of 830â€‰nm Laser Phototherapy on Osteoblasts Grown In Vitro on Biosilicate^{Â®} Scaffolds. Photomedicine and Laser Surgery, 2010, 28, 131-133.	2.1	53
69	A clinical, randomized, controlled study on the use of desensitizing agents during tooth bleaching. Journal of Dentistry, 2015, 43, 1099-1105.	1.7	53
70	The effect of a novel crystallised bioactive glass-ceramic powder on dentine hypersensitivity: a long-term clinical study. Journal of Oral Rehabilitation, 2011, 38, 253-262.	1.3	52
71	Crystallization in glass-forming liquids: Effects of decoupling of diffusion and viscosity on crystal growth. Journal of Non-Crystalline Solids, 2015, 429, 45-53.	1.5	51
72	Experimental test of the general theory of transformation kinetics: Homogeneous nucleation in a Na2OÂ·2CaOÂ·3SiO2 glass. Journal of Non-Crystalline Solids, 1988, 104, 73-80.	1.5	50

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73	Effect of magnesium ion incorporation on the thermal stability, dissolution behavior and bioactivity in Bioglass-derived glasses. Journal of Non-Crystalline Solids, 2013, 382, 57-65.	1.5	50
74	Anisotropic residual stresses in partially crystallized Li2Oâ€“2SiO2 glass-ceramics. Journal of Non-Crystalline Solids, 1999, 247, 79-86.	1.5	49
75	On the sinterability of crystallizing glass powders. Journal of Non-Crystalline Solids, 2008, 354, 4589-4597.	1.5	49
76	Glass-ceramics and realization of the unobtainable: Property combinations that push the envelope. MRS Bulletin, 2017, 42, 195-199.	1.7	49
77	"Nose Method" of Calculating Critical Cooling Rates for Glass Formation. Journal of the American Ceramic Society, 1989, 72, 2054-2058.	1.9	48
78	On the persistence of metastable crystal phases in lithium disilicate glass. Journal of Non-Crystalline Solids, 2000, 274, 188-194.	1.5	48
79	Glass formation from iron-rich phosphate melts. Journal of Non-Crystalline Solids, 2010, 356, 1252-1257.	1.5	48
80	Mechanisms and dynamics of crystal growth, viscous flow, and self-diffusion in silica glass. Physical Review B, 2006, 73, .	1.1	47
81	BiosilicateÂ® and low-level laser therapy improve bone repair in osteoporotic rats. Journal of Tissue Engineering and Regenerative Medicine, 2011, 5, 229-237.	1.3	47
82	How Do Crystals Form and Grow in Glassâ€Forming Liquids: Ostwald's Rule of Stages and Beyond. International Journal of Applied Glass Science, 2010, 1, 16-26.	1.0	46
83	Characterization andIn VivoBiological Performance of Biosilicate. BioMed Research International, 2013, 2013, 1-7.	0.9	46
84	Surface and volume nucleation and growth in TiO2â€“cordierite glasses. Journal of Non-Crystalline Solids, 1999, 246, 115-127.	1.5	45
85	Stress development and relaxation during crystal growth in glass-forming liquids. Journal of Non-Crystalline Solids, 2006, 352, 434-443.	1.5	45
86	Efficacy of a bioactive glassâ€“ceramic (Biosilicate^{Â®}) in the maintenance of alveolar ridges and in osseointegration of titanium implants. Clinical Oral Implants Research, 2010, 21, 148-155.	1.9	45
87	Crystallization, mechanical, and optical properties of transparent, nanocrystalline gahnite glassâ€ceramics. Journal of the American Ceramic Society, 2017, 100, 1963-1975.	1.9	45
88	Assessment of antimicrobial effect of BiosilicateÂ® against anaerobic, microaerophilic and facultative anaerobic microorganisms. Journal of Materials Science: Materials in Medicine, 2011, 22, 1439-1446.	1.7	43
89	Role of dynamic heterogeneities in crystal nucleation kinetics in an oxide supercooled liquid. Journal of Chemical Physics, 2016, 145, 211920.	1.2	43
90	Surface and bulk residual stresses in Li2OÂ·2SiO2 glassâ€“ceramics. Journal of Non-Crystalline Solids, 2007, 353, 2307-2317.	1.5	42

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91	Effects of biosilicate and bioglass 45S5 on tibial bone consolidation on rats: a biomechanical and a histological study. Journal of Materials Science: Materials in Medicine, 2009, 20, 2521-2526.	1.7	42
92	Origin of crystallization-induced refractive index changes in photo-thermo-refractive glass. Optical Materials, 2009, 32, 139-146.	1.7	41
93	Incorporation of bioactive glass in calcium phosphate cement: Material characterization and in vitro degradation. Journal of Biomedical Materials Research - Part A, 2013, 101A, 2365-2373.	2.1	41
94	New Sintered <scp><scp>Li</scp></scp>₂<scp><scp>O</scp></scp>â€“<scp><scp>Al</scp></scp>₂<scp><scp>O</scp></scp> Ultraâ€Low Expansion Glassâ€Ceramic. Journal of the American Ceramic Society, 2013, 96, 1143-1149.	3.5	41
95	Biosilicate^{Â®}â€“gelatine bone scaffolds by the foam replica technique: development and characterization. Science and Technology of Advanced Materials, 2013, 14, 045008.	2.8	41
96	A guided walk through Larry Henchâ€™s monumental discoveries. Journal of Materials Science, 2017, 52, 8695-8732.	1.7	40
97	A review of the photo-thermal mechanism and crystallization of photo-thermo-refractive (PTR) glass. International Materials Reviews, 2017, 62, 348-366.	9.4	40
98	Diffusivity, Interfacial Free Energy, and Crystal Nucleation in a Supercooled Lennard-Jones Liquid. Journal of Physical Chemistry C, 2018, 122, 28884-28894.	1.5	40
99	Designing optical glasses by machine learning coupled with a genetic algorithm. Ceramics International, 2021, 47, 10555-10564.	2.3	40
100	Critical cooling rate calculations for glass formation. Journal of Non-Crystalline Solids, 1990, 123, 90-96.	1.5	39
101	Isothermal sintering with concurrent crystallization of polydispersed sodaâ€“limeâ€“silica glass beads. Journal of Non-Crystalline Solids, 2003, 331, 145-156.	1.5	39
102	Nanocrystallization of fresnoite glass. II. Analysis of homogeneous nucleation kinetics. Journal of Non-Crystalline Solids, 2004, 343, 85-90.	1.5	39
103	Molecular structure and nucleation in silicate glasses. Journal of Non-Crystalline Solids, 1993, 155, 56-66.	1.5	38
104	Continuous compositional changes of crystal and liquid during crystallization of a sodium calcium silicate glass. Journal of Non-Crystalline Solids, 2007, 353, 2459-2468.	1.5	38
105	The effects of amorphous phase separation on crystal nucleation kinetics in BaO-SiO2 glasses. Journal of Materials Science, 1986, 21, 3050-3064.	1.7	37
106	In vitro biocompatibility of new bioactive lithia-silica glass-ceramics. Materials Science and Engineering C, 2019, 94, 117-125.	3.8	37
107	Role of bromine on the thermal and optical properties of photo-thermo-refractive glass. Journal of Non-Crystalline Solids, 2008, 354, 456-461.	1.5	36
108	Method to estimate crystal/liquid surface energy by dissolution of subcritical nuclei. Journal of Non-Crystalline Solids, 2000, 278, 24-34.	1.5	35

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109	Non-isothermal sintering with concurrent crystallization of polydispersed sodaâ€“limeâ€“silica glass beads. Journal of Non-Crystalline Solids, 2003, 331, 157-167.	1.5	35
110	The microscopic origin of the extreme glass-forming ability of Albite and B2O3. Scientific Reports, 2017, 7, 43022.	1.6	35
111	Electrospun F18 Bioactive Glass/PCLâ€”Poly (Îµ-caprolactone)â€”Membrane for Guided Tissue Regeneration. Materials, 2018, 11, 400.	1.3	35
112	Effects of Biosilicate^{Â®} Scaffolds and Low-Level Laser Therapy on the Process of Bone Healing. Photomedicine and Laser Surgery, 2013, 31, 252-260.	2.1	34
113	Microstructure and mechanical properties of nucleant-free Li2O-CaO-SiO2 glass-ceramics. Acta Materialia, 2017, 130, 347-360.	3.8	34
114	Bioactive Glass Fiber-Reinforced PGS Matrix Composites for Cartilage Regeneration. Materials, 2017, 10, 83.	1.3	34
115	Experimental test of the general theory of transformation kinetics: Homogeneous nucleation in a BaO Â· 2SiO2 glass. Journal of Non-Crystalline Solids, 1988, 104, 70-72.	1.5	33
116	Non-isothermal sinter-crystallization of jagged Li2Oâ€“Al2O3â€“SiO2 glass and simulation using a modified form of the Clusters model. Journal of Non-Crystalline Solids, 2012, 358, 3234-3242.	1.5	33
117	Histopathological, cytotoxicity and genotoxicity evaluation of BiosilicateÂ® glassâ€“ceramic scaffolds. Journal of Biomedical Materials Research - Part A, 2013, 101A, 667-673.	2.1	33
118	Effect of structural relaxation on crystal nucleation in glasses. Acta Materialia, 2021, 203, 116472.	3.8	33
119	The effect of pre-existing crystals on the crystallization kinetics of a sodaâ€“lime-silica glass. The courtyard phenomenon. Journal of Non-Crystalline Solids, 1999, 258, 180-186.	1.5	32
120	New insights on the thermodynamic barrier for nucleation in glasses: The case of lithium disilicate. Journal of Non-Crystalline Solids, 2005, 351, 1491-1499.	1.5	32
121	Crystal nucleation and growth kinetics of NaF in photo-thermo-refractive glass. Journal of Non-Crystalline Solids, 2013, 378, 115-120.	1.5	32
122	Biosilicate^{Â®} scaffolds produced by 3Dâ€printing and direct foaming using preceramic polymers. Journal of the American Ceramic Society, 2019, 102, 1010-1020.	1.9	32
123	Residual stress effect on the fracture toughness of lithium disilicate glassâ€ceramics. Journal of the American Ceramic Society, 2020, 103, 465-479.	1.9	32
124	Diffusion coefficients for crystal nucleation and growth in deeply undercooled glass-forming liquids. Journal of Chemical Physics, 2007, 126, 234507.	1.2	31
125	Nucleation time-lag from nucleation and growth experiments in deeply undercooled glass-forming liquids. Journal of Non-Crystalline Solids, 2008, 354, 3785-3792.	1.5	31
126	Biocompatibility Analysis of Bioglass^{Â®}45S5 and Biosilicate^{Â®}Implants in the Rabbit Eviscerated Socket. Orbit, 2012, 31, 143-149.	0.5	31

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127	Effect of a new bioactive fibrous glassy scaffold on bone repair. Journal of Materials Science: Materials in Medicine, 2015, 26, 177.	1.7	31
128	Model-driven design of bioactive glasses: from molecular dynamics through machine learning. International Materials Reviews, 2020, 65, 297-321.	9.4	31
129	Successful test of the classical nucleation theory by molecular dynamic simulations of BaS. Computational Materials Science, 2019, 161, 99-106.	1.4	30
130	XRD investigation of metastable phase formation in Li2Oâ€“2SiO2 glass. Journal of Non-Crystalline Solids, 1999, 255, 264-268.	1.5	29
131	Crystallization in glass-forming liquids: Effects of fragility and glass transition temperature. Journal of Non-Crystalline Solids, 2015, 428, 68-74.	1.5	29
132	Crystal growth and viscous flow in barium disilicate glass. Journal of Non-Crystalline Solids, 2018, 479, 55-61.	1.5	29
133	Viscosity and liquidusâ€based predictor of glassâ€forming ability of oxide glasses. Journal of the American Ceramic Society, 2020, 103, 921-932.	1.9	29
134	The race within supercooled liquidsâ€”Relaxation versus crystallization. Journal of Chemical Physics, 2018, 149, 024503.	1.2	28
135	Transparent glassâ€“ceramics for ballistic protection: materials and challenges. Journal of Materials Research and Technology, 2019, 8, 3357-3372.	2.6	28
136	Effects of Glass Transition and Structural Relaxation on Crystal Nucleation: Theoretical Description and Model Analysis. Entropy, 2020, 22, 1098.	1.1	28
137	Surface nucleation in a diopside glass. Journal of Non-Crystalline Solids, 1991, 130, 217-219.	1.5	27
138	Thermal shock properties of chemically toughened borosilicate glass. Journal of Non-Crystalline Solids, 1999, 247, 39-49.	1.5	27
139	Sodium Fluoride Solubility and Crystallization in Photoâ€Thermoâ€Refractive Glass. Journal of the American Ceramic Society, 2010, 93, 716-721.	1.9	27
140	The origin of the unusual DSC peaks of supercooled barium disilicate liquid. CrystEngComm, 2019, 21, 2768-2778.	1.3	27
141	The applicability of the general theory of phase transformations to glass crystallization. Thermochimica Acta, 1996, 280-281, 73-82.	1.2	26
142	Critical Analysis of Glass Stability Parameters and Application to Lithium Borate Glasses. Journal of the American Ceramic Society, 2011, 94, 3833-3841.	1.9	26
143	Bioactive gel-glasses with distinctly different compositions: Bioactivity, viability of stem cells and antibiofilm effect against Streptococcus mutans. Materials Science and Engineering C, 2017, 76, 233-241.	3.8	26
144	Biosilicate/PLGA osteogenic effects modulated by laser therapy: In vitro and in vivo studies. Journal of Photochemistry and Photobiology B: Biology, 2017, 173, 258-265.	1.7	26

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145	Heating rate effects in time-dependent homogeneous nucleation in glasses. Journal of Non-Crystalline Solids, 2017, 474, 1-8.	1.5	25
146	Predicting and interpreting oxide glass properties by machine learning using large datasets. Ceramics International, 2021, 47, 23958-23972.	2.3	25
147	Surface nucleation and growth in Anorthite glass. Journal of Non-Crystalline Solids, 2000, 271, 94-99.	1.5	24
148	Thermal stability of glasses from the Fe4(P2O7)3â€“Fe(PO3)3 system. Journal of Non-Crystalline Solids, 2010, 356, 2965-2968.	1.5	24
149	Bioactive magnetic glass-ceramics for cancer treatment. Biomedical Glasses, 2019, 5, 148-177.	2.4	24
150	Sintering polydispersed spherical glass particles. Journal of Materials Research, 2003, 18, 1347-1354.	1.2	23
151	Intermediate-Range Order of Alkali Disilicate Glasses and Its Relation to the Devitrification Mechanism. Journal of Physical Chemistry C, 2008, 112, 6151-6159.	1.5	23
152	Stress induced pore formation and phase selection in a crystallizing stretched glass. Journal of Non-Crystalline Solids, 2010, 356, 1679-1688.	1.5	23
153	Characterization and biocompatibility of a fibrous glassy scaffold. Journal of Tissue Engineering and Regenerative Medicine, 2017, 11, 1141-1151.	1.3	23
154	New highly bioactive crystallization-resistant glass for tissue engineering applications. Translational Materials Research, 2017, 4, 014002.	1.2	23
155	Critical assessment of the alleged failure of the Classical Nucleation Theory at low temperatures. Journal of Non-Crystalline Solids, 2020, 547, 120297.	1.5	23
156	Crystal Nucleation Kinetics in Supercooled Germanium: MD Simulations versus Experimental Data. Journal of Physical Chemistry B, 2020, 124, 7979-7988.	1.2	23
157	Highly translucent nanostructured glass-ceramic. Ceramics International, 2021, 47, 4707-4714.	2.3	23
158	Structural Similarity on Multiple Length Scales and Its Relation to Devitrification Mechanism: A Solid-State NMR Study of Alkali Diborate Glasses and Crystals. Journal of Physical Chemistry C, 2009, 113, 20725-20732.	1.5	22
159	Internal Residual Stresses in Partially Crystallized Photoâ€Thermoâ€Refractive Glass. Journal of the American Ceramic Society, 2011, 94, 671-674.	1.9	22
160	In situ crystallization and elastic properties of transparent MgOâ€“Al₂O₃â€“SiO₂ glassâ€ceramic. Journal of the American Ceramic Society, 2017, 100, 2166-2175.	1.9	22
161	A Raman investigation of the structural evolution of supercooled liquid barium disilicate during crystallization. International Journal of Applied Glass Science, 2018, 9, 510-517.	1.0	22
162	Effect of liquid phase separation on crystal nucleation in glass-formers. Case closed. Ceramics International, 2020, 46, 24779-24791.	2.3	22

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163	Is the structural relaxation of glasses controlled by equilibrium shear viscosity?. Journal of the American Ceramic Society, 2021, 104, 2066-2076.	1.9	22
164	The formation of unusual glasses by sol-gel processing. Journal of Non-Crystalline Solids, 1992, 147-148, 820-823.	1.5	21
165	Model for Sintering Devitrifying Glass Particles with Embedded Rigid Fibers. Journal of the American Ceramic Society, 2005, 88, 1427-1434.	1.9	21
166	Nucleation and Crystallization Kinetics in Silicate Glasses: Theory and Experiment. , 2005, , 74-125.		21
167	Residual internal stress in partially crystallized photothermorefractive glass: Evaluation by nuclear magnetic resonance spectroscopy and first principles calculations. Journal of Applied Physics, 2006, 99, 083511.	1.1	21
168	Effect of structural relaxation on crystal nucleation in a sodaâ€limeâ€silica glass. Journal of the American Ceramic Society, 2021, 104, 3212-3223.	1.9	21
169	Crystallization, texture and second-harmonic generation in TiO2â€“BaOâ€“B2O3 glasses. Optical Materials, 2006, 28, 935-943.	1.7	20
170	Glass Crystallization Research â€“ A 36â€Year Retrospective. Part <scp>II</scp>, Methods of Study and Glassâ€Ceramics. International Journal of Applied Glass Science, 2013, 4, 117-124.	1.0	20
171	Injectable composites based on biosilicateÂ® and alginate: handling and in vitro characterization. RSC Advances, 2014, 4, 45778-45785.	1.7	20
172	Ionic conductivity and mixed-ion effect in mixed alkali metaphosphate glasses. Physical Chemistry Chemical Physics, 2017, 19, 6594-6600.	1.3	20
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