Edgar D Zanotto

List of Publications by Citations

320 papers	9,358 citations	51 h-index	79 g-index
348 ext. papers	10,790 ext. citations	4.4 avg, IF	6.7 L-index

#	Paper	IF	Citations
320	Highly bioactive P2O5âNa2OâCaOâSiO2 glass-ceramics. *Journal of Non-Crystalline Solids*, **2001**, 292, 115-126	3.9	405
319	Homogeneous crystal nucleation in silicate glasses: A 40 years perspective. *Journal of Non-Crystalline Solids*, **2006**, 352, 2681-2714	3.9	314
318	Can glass stability parameters infer glass forming ability?. *Journal of Non-Crystalline Solids*, **2005**, 351, 3296-3308	3.9	197
317	Surface crystallization of silicate glasses: nucleation sites and kinetics. *Journal of Non-Crystalline Solids*, **2000**, 274, 208-231	3.9	195
316	Experimental tests of the classical nucleation theory for glasses. *Journal of Non-Crystalline Solids*, **1985**, 74, 373-394	3.9	163
315	Updated definition of glass-ceramics. *Journal of Non-Crystalline Solids*, **2018**, 501, 3-10	3.9	157
314	The glassy state of matter: Its definition and ultimate fate. *Journal of Non-Crystalline Solids*, **2017**, 471, 490-495	3.9	135
313	Crystallization mechanism and properties of a blast furnace slag glass. *Journal of Non-Crystalline Solids*, **2000**, 273, 64-75	3.9	133
312	Understanding Glass through Differential Scanning Calorimetry. *Chemical Reviews*, **2019**, 119, 7848-7939	68.1	124
311	TEM and XRD study of early crystallization of lithium disilicate glasses. *Journal of Non-Crystalline Solids*, **2003**, 331, 217-227	3.9	119
310	Isothermal and adiabatic nucleation in glass. *Journal of Non-Crystalline Solids*, **1987**, 89, 361-370	3.9	118
309	Crystallization toughening of a model glass-ceramic. *Acta Materialia*, **2015**, 86, 216-228	8.4	108
308	In vitro osteogenesis on a highly bioactive glass-ceramic (Biosilicate). *Journal of Biomedical Materials Research - Part A*, **2007**, 82, 545-57	5.4	106
307	Nanocrystallization of fresnoite glass. I. Nucleation and growth kinetics. *Journal of Non-Crystalline Solids*, **2003**, 330, 174-186	3.9	95
306	Biosilicate âA multipurpose, highly bioactive glass-ceramic. In vitro, in vivo and clinical trials. *Journal of Non-Crystalline Solids*, **2016**, 432, 90-110	3.9	92
305	Compositional and microstructural design of highly bioactive P2O5-Na2O-CaO-SiO2 glass-ceramics. *Acta Biomaterialia*, **2012**, 8, 321-32	10.8	91
304	29Si MASâNMR studies of Qn structural units in metasilicate glasses and their nucleating ability. *Journal of Non-Crystalline Solids*, **2000**, 273, 8-18	3.9	89

303	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	1.8	87
302	Internal residual stresses in glass-ceramics: A review. *Journal of Non-Crystalline Solids*, **2012**, 358, 975-984	3.9	85
301	New large grain, highly crystalline, transparent glassâ□eramics. *Journal of Non-Crystalline Solids*, **2008**, 354, 1721-1730	3.9	84
300	Crystal nucleation in silicate glasses: the temperature and size dependence of crystal/liquid surface energy. *Journal of Non-Crystalline Solids*, **2000**, 265, 105-112	3.9	84
299	Surface crystallization kinetics in soda-lime-silica glasses. *Journal of Non-Crystalline Solids*, **1991**, 129, 183-190	3.9	83
298	Qn distribution in stoichiometric silicate glasses: thermodynamic calculations and 29Si high resolution NMR measurements. *Journal of Non-Crystalline Solids*, **2003**, 325, 164-178	3.9	82
297	Glass-forming ability versus stability of silicate glasses. I. Experimental test. *Journal of Non-Crystalline Solids*, **2003**, 320, 1-8	3.9	80
296	Bioactive and inert dental glass-ceramics. *Journal of Biomedical Materials Research - Part A*, **2017**, 105, 619-639	5.4	79
295	Does viscosity describe the kinetic barrier for crystal growth from the liquidus to the glass transition?. *Journal of Chemical Physics*, **2010**, 133, 174701	3.9	78
294	Pressure dependence of viscosity. *Journal of Chemical Physics*, **2005**, 122, 074511	3.9	78
293	Glass sintering with concurrent crystallization. *Comptes Rendus Chimie*, **2002**, 5, 773-786	2.7	78
292	History and trends of bioactive glass-ceramics. *Journal of Biomedical Materials Research - Part A*, **2016**, 104, 1231-49	5.4	77
291	Gel-derived SiO2â□CaOâ□Na2Oâ□P2O5 bioactive powders: Synthesis and in vitro bioactivity. *Materials Science and Engineering C*, **2011**, 31, 983-991	8.3	75
290	Relationship between short-range order and ease of nucleation in Na2Ca2Si3O9, CaSiO3 and PbSiO3 glasses. *Journal of Non-Crystalline Solids*, **2000**, 262, 191-199	3.9	75
289	Model for sintering polydispersed glass particles. *Journal of Non-Crystalline Solids*, **2001**, 279, 169-178	3.9	75
288	Recent studies of internal and surface nucleation in silicate glasses. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2003**, 361, 591-613	3	74
287	Homogeneous nucleation versus glass transition temperature of silicate glasses. *Journal of Non-Crystalline Solids*, **2003**, 321, 52-65	3.9	72
286	Glass-forming ability versus stability of silicate glasses. II. Theoretical demonstration. *Journal of Non-Crystalline Solids*, **2003**, 320, 9-20	3.9	72

285	Predicting glass transition temperatures using neural networks. *Acta Materialia*, **2018**, 159, 249-256	8.4	70
284	Dynamic processes in a silicate liquid from above melting to below the glass transition. *Journal of Chemical Physics*, **2011**, 135, 194703	3.9	70
283	Crystallization of glass-forming liquids: Maxima of nucleation, growth, and overall crystallization rates. *Journal of Non-Crystalline Solids*, **2015**, 429, 24-32	3.9	68
282	Do cathedral glasses flow?. *American Journal of Physics*, **1998**, 66, 392-395	0.7	65
281	A test of the Hrub parameter to estimate glass-forming ability. *Journal of Non-Crystalline Solids*, **1997**, 219, 182-186	3.9	63
280	A simple method to predict the nucleation mechanism in glass. *Journal of Non-Crystalline Solids*, **1991**, 130, 220-221	3.9	63
279	Critical assessment of DTAâDSC methods for the study of nucleation kinetics in glasses. *Journal of Non-Crystalline Solids*, **2010**, 356, 358-367	3.9	62
278	Metastable phases in lithium disilicate glasses. *Journal of Non-Crystalline Solids*, **1997**, 219, 42-48	3.9	62
277	Correlation between maximum crystal growth rate and glass transition temperature of silicate glasses. *Journal of Non-Crystalline Solids*, **2005**, 351, 789-794	3.9	59
276	Thirty-year quest for structureâucleation relationships in oxide glasses. *International Materials Reviews*, **2015**, 60, 376-391	16.1	57
275	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	3.9	57
274	Kinetics and mechanisms of crystal growth and diffusion in a glass-forming liquid. *Journal of Chemical Physics*, **2004**, 121, 8924-8	3.9	55
273	Mutant crystals in Na2O•2CaO•3SiO2 glasses. *Journal of Non-Crystalline Solids*, **2003**, 331, 240-253	3.9	54
272	Surface crystallization and texture in cordierite glasses. *Journal of Non-Crystalline Solids*, **2000**, 273, 81-93	3.9	53
271	The nucleation mechanism of lithium dissilicate glass revisited. *Journal of Non-Crystalline Solids*, **1996**, 202, 145-152	3.9	51
270	Crystal nucleation in glass-forming liquids: Variation of the size of the âtructural unitsâwith temperature. *Journal of Non-Crystalline Solids*, **2016**, 447, 35-44	3.9	51
269	The effect of elastic stresses on the thermodynamic barrier for crystal nucleation. *Journal of Non-Crystalline Solids*, **2016**, 432, 325-333	3.9	49
268	In vivo biological performance of a novel highly bioactive glass-ceramic (Biosilicate): A biomechanical and histomorphometric study in rat tibial defects. *Journal of Biomedical Materials Research - Part B Applied Biomaterials*, **2011**, 97, 139-47	3.5	49

267	Incorporation of bioactive glass in calcium phosphate cement: An evaluation. *Acta Biomaterialia*, **2013**, 9, 5728-39	10.8	48
266	Effect of 830 nm laser phototherapy on osteoblasts grown in vitro on Biosilicate scaffolds. *Photomedicine and Laser Surgery*, **2010**, 28, 131-3		48
265	Crystal growth kinetics in cordierite and diopside glasses in wide temperature ranges. *Journal of Non-Crystalline Solids*, **2008**, 354, 5386-5394	3.9	48
264	Bioactivity and cell proliferation in radiopaque gel-derived CaO-P2O5-SiO2-ZrO2 glass and glass-ceramic powders. *Materials Science and Engineering C*, **2015**, 55, 436-47	8.3	47
263	DSC Method for Determining the Liquidus Temperature of Glass-Forming Systems. *Journal of the American Ceramic Society*, **2010**, 93, 3757-3763	3.8	47
262	A novel bioactive glass-ceramic for treating dentin hypersensitivity. *Brazilian Oral Research*, **2010**, 24, 381-7	2.6	47
261	The influence of phosphorus precursors on the synthesis and bioactivity of SiO2-CaO-P 2O 5 sol-gel glasses and glass-ceramics. *Journal of Materials Science: Materials in Medicine*, **2013**, 24, 365-79	4.5	46
260	Residual stresses in a soda-lime-silica glass-ceramic. *Journal of Non-Crystalline Solids*, **1996**, 194, 297-304	3.9	46
259	Crystallization in glass-forming liquids: Effects of decoupling of diffusion and viscosity on crystal growth. *Journal of Non-Crystalline Solids*, **2015**, 429, 45-53	3.9	45
258	Do cathedral glasses flow?âAdditional remarks. *American Journal of Physics*, **1999**, 67, 260-262	0.7	45
257	Glass Crystallization Research âA 36-Year Retrospective. Part I, Fundamental Studies. *International Journal of Applied Glass Science*, **2013**, 4, 105-116	1.8	44
256	On the persistence of metastable crystal phases in lithium disilicate glass. *Journal of Non-Crystalline Solids*, **2000**, 274, 188-194	3.9	44
255	Experimental test of the general theory of transformation kinetics: Homogeneous nucleation in a Na2O•2CaO•3SiO2 glass. *Journal of Non-Crystalline Solids*, **1988**, 104, 73-80	3.9	44
254	Internal Residual Stresses in Sintered and Commercial Low Expansion Li2OâAl2O3âSiO2 GlassâCeramics. *Journal of the American Ceramic Society*, **2011**, 94, 1206-1214	3.8	43
253	Biosilicate and low-level laser therapy improve bone repair in osteoporotic rats. *Journal of Tissue Engineering and Regenerative Medicine*, **2011**, 5, 229-37	4.4	43
252	Efficacy of a bioactive glass-ceramic (Biosilicate) in the maintenance of alveolar ridges and in osseointegration of titanium implants. *Clinical Oral Implants Research*, **2010**, 21, 148-55	4.8	43
251	Glass formation from iron-rich phosphate melts. *Journal of Non-Crystalline Solids*, **2010**, 356, 1252-1257	3.9	43
250	Solâgel synthesis, structure, sintering and properties of bioactive and inert nano-apatiteâzirconia glassâceramics. *Ceramics International*, **2015**, 41, 11024-11045	5.1	42

249	âNose Methodâ□of Calculating Critical Cooling Rates for Glass Formation. *Journal of the American Ceramic Society*, **1989**, 72, 2054-2058	3.8	42
248	Surface and volume nucleation and growth in TiO2â□ordierite glasses. *Journal of Non-Crystalline Solids*, **1999**, 246, 115-127	3.9	41
247	Anisotropic residual stresses in partially crystallized Li2Oâ□SiO2 glass-ceramics. *Journal of Non-Crystalline Solids*, **1999**, 247, 79-86	3.9	41
246	Characterization and in vivo biological performance of biosilicate. *BioMed Research International*, **2013**, 2013, 141427	3	40
245	How Do Crystals Form and Grow in Glass-Forming Liquids: Ostwald's Rule of Stages and Beyond. *International Journal of Applied Glass Science*, **2010**, 1, 16-26	1.8	40
244	Stress development and relaxation during crystal growth in glass-forming liquids. *Journal of Non-Crystalline Solids*, **2006**, 352, 434-443	3.9	40
243	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	3.9	39
242	On the sinterability of crystallizing glass powders. *Journal of Non-Crystalline Solids*, **2008**, 354, 4589-4597	3.9	39
241	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, 2521-6	4.5	38
240	Critical cooling rate calculations for glass formation. *Journal of Non-Crystalline Solids*, **1990**, 123, 90-96	3.9	38
239	Isothermal sintering with concurrent crystallization of polydispersed sodaâ□meâ□silica glass beads. *Journal of Non-Crystalline Solids*, **2003**, 331, 145-156	3.9	37
238	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	3.9	37
237	Molecular structure and nucleation in silicate glasses. *Journal of Non-Crystalline Solids*, **1993**, 155, 56-66	3.9	37
236	Biosilicate-gelatine bone scaffolds by the foam replica technique: development and characterization. *Science and Technology of Advanced Materials*, **2013**, 14, 045008	7.1	36
235	Mechanisms and dynamics of crystal growth, viscous flow, and self-diffusion in silica glass. *Physical Review B*, **2006**, 73,	3.3	36
234	A clinical, randomized, controlled study on the use of desensitizing agents during tooth bleaching. *Journal of Dentistry*, **2015**, 43, 1099-1105	4.8	35
233	New Sintered Li2Oâ□Al2O3â□SiO2 Ultra-Low Expansion Glass-Ceramic. *Journal of the American Ceramic Society*, **2013**, 96, 1143-1149	3.8	34
232	The effect of a novel crystallised bioactive glass-ceramic powder on dentine hypersensitivity: a long-term clinical study. *Journal of Oral Rehabilitation*, **2011**, 38, 253-62	3.4	34

231	Assessment of antimicrobial effect of Biosilicate against anaerobic, microaerophilic and facultative anaerobic microorganisms. *Journal of Materials Science: Materials in Medicine*, **2011**, 22, 1439-46	4.5	34
230	Method to estimate crystal/liquid surface energy by dissolution of subcritical nuclei. *Journal of Non-Crystalline Solids*, **2000**, 278, 24-34	3.9	34
229	Glass-ceramics and realization of the unobtainable: Property combinations that push the envelope. *MRS Bulletin*, **2017**, 42, 195-199	3.2	33
228	Surface and bulk residual stresses in Li2O•2SiO2 glassâceramics. *Journal of Non-Crystalline Solids*, **2007**, 353, 2307-2317	3.9	33
227	Role of dynamic heterogeneities in crystal nucleation kinetics in an oxide supercooled liquid. *Journal of Chemical Physics*, **2016**, 145, 211920	3.9	33
226	Crystallization, mechanical, and optical properties of transparent, nanocrystalline gahnite glass-ceramics. *Journal of the American Ceramic Society*, **2017**, 100, 1963-1975	3.8	32
225	X-ray Absorption Fine Structure (XAFS) Studies of Oxide Glasses-A 45-Year Overview. *Materials*, **2018**, 11,	3.5	32
224	Effects of biosilicate( ) scaffolds and low-level laser therapy on the process of bone healing. *Photomedicine and Laser Surgery*, **2013**, 31, 252-60		32
223	Continuous compositional changes of crystal and liquid during crystallization of a sodium calcium silicate glass. *Journal of Non-Crystalline Solids*, **2007**, 353, 2459-2468	3.9	32
222	Nanocrystallization of fresnoite glass. II. Analysis of homogeneous nucleation kinetics. *Journal of Non-Crystalline Solids*, **2004**, 343, 85-90	3.9	32
221	The effects of amorphous phase separation on crystal nucleation kinetics in BaO-SiO2 glasses. *Journal of Materials Science*, **1986**, 21, 3050-3064	4.3	32
220	Diffusivity, Interfacial Free Energy, and Crystal Nucleation in a Supercooled Lennard-Jones Liquid. *Journal of Physical Chemistry C*, **2018**, 122, 28884-28894	3.8	32
219	Incorporation of bioactive glass in calcium phosphate cement: material characterization and in vitro degradation. *Journal of Biomedical Materials Research - Part A*, **2013**, 101, 2365-73	5.4	31
218	Role of bromine on the thermal and optical properties of photo-thermo-refractive glass. *Journal of Non-Crystalline Solids*, **2008**, 354, 456-461	3.9	31
217	New insights on the thermodynamic barrier for nucleation in glasses: The case of lithium disilicate. *Journal of Non-Crystalline Solids*, **2005**, 351, 1491-1499	3.9	31
216	Non-isothermal sinter-crystallization of jagged Li2OâAl2O3âSiO2 glass and simulation using a modified form of the Clusters model. *Journal of Non-Crystalline Solids*, **2012**, 358, 3234-3242	3.9	30
215	Non-isothermal sintering with concurrent crystallization of polydispersed sodaâlimeâsilica glass beads. *Journal of Non-Crystalline Solids*, **2003**, 331, 157-167	3.9	30
214	Histopathological, cytotoxicity and genotoxicity evaluation of Biosilicate glass-ceramic scaffolds. *Journal of Biomedical Materials Research - Part A*, **2013**, 101, 667-73	5.4	29

213	Origin of crystallization-induced refractive index changes in photo-thermo-refractive glass. *Optical Materials*, **2009**, 32, 139-146	3.3	29
212	Crystallization in glass-forming liquids: Effects of fragility and glass transition temperature. *Journal of Non-Crystalline Solids*, **2015**, 428, 68-74	3.9	28
211	Effect of a new bioactive fibrous glassy scaffold on bone repair. *Journal of Materials Science: Materials in Medicine*, **2015**, 26, 177	4.5	27
210	Explainable Machine Learning Algorithms For Predicting Glass Transition Temperatures. *Acta Materialia*, **2020**, 188, 92-100	8.4	27
209	Nucleation time-lag from nucleation and growth experiments in deeply undercooled glass-forming liquids. *Journal of Non-Crystalline Solids*, **2008**, 354, 3785-3792	3.9	27
208	Electrospun F18 Bioactive Glass/PCL-Poly (Ecaprolactone)-Membrane for Guided Tissue Regeneration. *Materials*, **2018**, 11,	3.5	26
207	Biocompatibility analysis of bioglass 45S5 and biosilicate implants in the rabbit eviscerated socket. *Orbit*, **2012**, 31, 143-9	1.5	26
206	Experimental test of the general theory of transformation kinetics: Homogeneous nucleation in a BaO ‘2SiO2 glass. *Journal of Non-Crystalline Solids*, **1988**, 104, 70-72	3.9	26
205	The microscopic origin of the extreme glass-forming ability of Albite and BO. *Scientific Reports*, **2017**, 7, 43022	4.9	25
204	Microstructure and mechanical properties of nucleant-free Li2O-CaO-SiO2 glass-ceramics. *Acta Materialia*, **2017**, 130, 347-360	8.4	25
203	Critical Analysis of Glass Stability Parameters and Application to Lithium Borate Glasses. *Journal of the American Ceramic Society*, **2011**, 94, 3833-3841	3.8	25
202	The effect of pre-existing crystals on the crystallization kinetics of a sodaâme-silica glass. The courtyard phenomenon. *Journal of Non-Crystalline Solids*, **1999**, 258, 180-186	3.9	25
201	Bioactive Glass Fiber-Reinforced PGS Matrix Composites for Cartilage Regeneration. *Materials*, **2017**, 10,	3.5	24
200	Diffusion coefficients for crystal nucleation and growth in deeply undercooled glass-forming liquids. *Journal of Chemical Physics*, **2007**, 126, 234507	3.9	24
199	XRD investigation of metastable phase formation in Li2Oâ2SiO2 glass. *Journal of Non-Crystalline Solids*, **1999**, 255, 264-268	3.9	24
198	Surface nucleation in a diopside glass. *Journal of Non-Crystalline Solids*, **1991**, 130, 217-219	3.9	24
197	Crystal growth and viscous flow in barium disilicate glass. *Journal of Non-Crystalline Solids*, **2018**, 479, 55-61	3.9	23
196	Thermal stability of glasses from the Fe4(P2O7)3âFe(PO3)3 system. *Journal of Non-Crystalline Solids*, **2010**, 356, 2965-2968	3.9	23

195	Surface nucleation and growth in Anorthite glass. *Journal of Non-Crystalline Solids*, **2000**, 271, 94-99	3.9	23
194	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	6.7	22
193	Crystal nucleation and growth kinetics of NaF in photo-thermo-refractive glass. *Journal of Non-Crystalline Solids*, **2013**, 378, 115-120	3.9	22
192	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	8.3	21
191	A review of the photo-thermal mechanism and crystallization of photo-thermo-refractive (PTR) glass. *International Materials Reviews*, **2017**, 62, 348-366	16.1	21
190	Internal Residual Stresses in Partially Crystallized Photo-Thermo-Refractive Glass. *Journal of the American Ceramic Society*, **2011**, 94, 671-674	3.8	21
189	Sodium Fluoride Solubility and Crystallization in Photo-Thermo-Refractive Glass. *Journal of the American Ceramic Society*, **2010**, 93, 716-721	3.8	21
188	Intermediate-Range Order of Alkali Disilicate Glasses and Its Relation to the Devitrification Mechanism. *Journal of Physical Chemistry C*, **2008**, 112, 6151-6159	3.8	21
187	Thermal shock properties of chemically toughened borosilicate glass. *Journal of Non-Crystalline Solids*, **1999**, 247, 39-49	3.9	21
186	Stress induced pore formation and phase selection in a crystallizing stretched glass. *Journal of Non-Crystalline Solids*, **2010**, 356, 1679-1688	3.9	20
185	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	2.5	20
184	Sintering polydispersed spherical glass particles. *Journal of Materials Research*, **2003**, 18, 1347-1354	2.5	20
183	The applicability of the general theory of phase transformations to glass crystallization. *Thermochimica Acta*, **1996**, 280-281, 73-82	2.9	20
182	Characterization and biocompatibility of a fibrous glassy scaffold. *Journal of Tissue Engineering and Regenerative Medicine*, **2017**, 11, 1141-1151	4.4	19
181	Successful test of the classical nucleation theory by molecular dynamic simulations of BaS. *Computational Materials Science*, **2019**, 161, 99-106	3.2	19
180	The race within supercooled liquids-Relaxation versus crystallization. *Journal of Chemical Physics*, **2018**, 149, 024503	3.9	19
179	Injectable composites based on biosilicate and alginate: handling and in vitro characterization. *RSC Advances*, **2014**, 4, 45778-45785	3.7	19
178	Heating rate effects in time-dependent homogeneous nucleation in glasses. *Journal of Non-Crystalline Solids*, **2017**, 474, 1-8	3.9	19

177	Glass Crystallization Research âA 36-Year Retrospective. Part II, Methods of Study and Glass-Ceramics. *International Journal of Applied Glass Science*, **2013**, 4, 117-124	1.8	19
176	Crystallization, texture and second-harmonic generation in TiO2âBaOâB2O3 glasses. *Optical Materials*, **2006**, 28, 935-943	3.3	19
175	Kinetics of sub-liquidus phase separation in silicate and borate glasses. A review. *Bulletin De Mineralogie*, **1983**, 106, 169-184		19
174	In vitro biocompatibility of new bioactive lithia-silica glass-ceramics. *Materials Science and Engineering C*, **2019**, 94, 117-125	8.3	19
173	New highly bioactive crystallization-resistant glass for tissue engineering applications. *Translational Materials Research*, **2017**, 4, 014002		18
172	The origin of the unusual DSC peaks of supercooled barium disilicate liquid. *CrystEngComm*, **2019**, 21, 2768-2778	3.3	18
171	Biosilicate scaffolds produced by 3D-printing and direct foaming using preceramic polymers. *Journal of the American Ceramic Society*, **2019**, 102, 1010-1020	3.8	18
170	Method to assess the homogeneity of partially crystallized glasses: Application to a photo-thermo-refractive glass. *Journal of Non-Crystalline Solids*, **2009**, 355, 1760-1768	3.9	18
169	Model for Sintering Devitrifying Glass Particles with Embedded Rigid Fibers. *Journal of the American Ceramic Society*, **2005**, 88, 1427-1434	3.8	18
168	Predicting homogeneous nucleation rates in silicate glass-formers. *Journal of Non-Crystalline Solids*, **2018**, 500, 231-234	3.9	17
167	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	3.8	17
166	Nucleation and Crystallization Kinetics in Silicate Glasses: Theory and Experiment **2005**, 74-125		17
165	Polymer crystallization: Fold surface free energy determination by different thermal analysis techniques. *Thermochimica Acta*, **1995**, 269-270, 191-199	2.9	17
164	The formation of unusual glasses by sol-gel processing. *Journal of Non-Crystalline Solids*, **1992**, 147-148, 820-823	3.9	17
163	Residual stress effect on the fracture toughness of lithium disilicate glass-ceramics. *Journal of the American Ceramic Society*, **2020**, 103, 465-479	3.8	17
162	A guided walk through Larry Henchâs monumental discoveries. *Journal of Materials Science*, **2017**, 52, 8695-8732	4.3	16
161	Elemental and cooperative diffusion in a liquid, supercooled liquid and glass resolved. *Journal of Chemical Physics*, **2017**, 147, 014501	3.9	16
160	Facile route to obtain a highly bioactive SiO2âCaOâNa2OâP2O5 crystalline powder. *Materials Science and Engineering C*, **2011**, 31, 1791-1799	8.3	16

159	Internal Residual Stress Measurements in a Bioactive Glassâ□Ceramic Using Vickers Indentation. *Journal of the American Ceramic Society*, **2010**, 93, 2359-2368	3.8	16
158	Correlation of network structure with devitrification mechanism in lithium and sodium diborate glasses. *Journal of Non-Crystalline Solids*, **2010**, 356, 2641-2644	3.9	16
157	A theoretical and experimental assessment of systematic errors in nucleation experiments. *Journal of Non-Crystalline Solids*, **1990**, 124, 86-90	3.9	16
156	Novel Double-Layered Conduit Containing Highly Bioactive Glass Fibers for Potential Nerve Guide Application. *International Journal of Applied Glass Science*, **2016**, 7, 183-194	1.8	15
155	New sintered wollastonite glass-ceramic for biomedical applications. *Ceramics International*, **2018**, 44, 20019-20027	5.1	15
154	Effect of cooling on the optical properties and crystallization of UV-exposed photo-thermo-refractive glass. *Journal of Non-Crystalline Solids*, **2008**, 354, 4730-4736	3.9	15
153	Mechanical Properties and Impact Resistance of a New Transparent Glass-Ceramic. *Advanced Engineering Materials*, **2007**, 9, 191-196	3.5	15
152	The role of amorphous phase separation in crystal nucleation in splat cooled Li2O-SiO2 glasses. *Journal of Materials Science*, **1981**, 16, 973-982	4.3	15
151	Effects of Glass Transition and Structural Relaxation on Crystal Nucleation: Theoretical Description and Model Analysis. *Entropy*, **2020**, 22,	2.8	15
150	Viscosity and liquidus-based predictor of glass-forming ability of oxide glasses. *Journal of the American Ceramic Society*, **2020**, 103, 921-932	3.8	15
149	A Raman investigation of the structural evolution of supercooled liquid barium disilicate during crystallization. *International Journal of Applied Glass Science*, **2018**, 9, 510-517	1.8	15
148	Transparent glassâ□eramics for ballistic protection: materials and challenges. *Journal of Materials Research and Technology*, **2019**, 8, 3357-3372	5.5	14
147	Bone regeneration and gene expression in bone defects under healthy and osteoporotic bone conditions using two commercially available bone graft substitutes. *Biomedical Materials (Bristol)*, **2015**, 10, 035003	3.5	14
146	Nonstoichiometric crystallization of lithium metasilicateâ□alcium metasilicate glasses. Part 1 â□ Crystal nucleation and growth rates. *Journal of Non-Crystalline Solids*, **2013**, 362, 56-64	3.9	14
145	Ionic conductivity and mixed-ion effect in mixed alkali metaphosphate glasses. *Physical Chemistry Chemical Physics*, **2017**, 19, 6594-6600	3.6	13
144	Biosilicato□ : histï□ico de uma vitrocerâ□mica brasileira de elevada bioatividade. *Quimica Nova*, **2011**, 34, 1231-1241	1.6	13
143	On the Determination of Nucleation Rates in Glasses by Nonisothermal Methods. *Journal of the American Ceramic Society*, **2010**, 93, 2438-2440	3.8	13
142	Saturation effects in homogeneous and heterogeneous crystal nucleation. *Journal of Non-Crystalline Solids*, **1988**, 105, 53-62	3.9	13

141	Crystal Nucleation Kinetics in Supercooled Germanium: MD Simulations versus Experimental Data. *Journal of Physical Chemistry B*, **2020**, 124, 7979-7988	3.4	13
140	Determination of Crystal Growth Rates in Glasses Over a Temperature Range Using a Single DSC Run. *Journal of the American Ceramic Society*, **2016**, 99, 2001-2008	3.8	13
139	Bioactive magnetic glass-ceramics for cancer treatment. *Biomedical Glasses*, **2019**, 5, 148-177	2.7	13
138	Effect of structural relaxation on crystal nucleation in glasses. *Acta Materialia*, **2021**, 203, 116472	8.4	13
137	The diffusion coefficient controlling crystal growth in a silicate glass-former. *International Journal of Applied Glass Science*, **2018**, 9, 373-382	1.8	12
136	Raman scattering and molecular dynamics investigation of lead metasilicate glass and supercooled liquid structures. *Journal of Non-Crystalline Solids*, **2018**, 499, 300-308	3.9	12
135	Effect of a bioactive glass-ceramic on the apatite nucleation on titanium surface modified by micro-arc oxidation. *Surface and Coatings Technology*, **2012**, 206, 4601-4605	4.4	12
134	Crystallization statistics. A new tool to evaluate glass homogeneity. *Journal of Non-Crystalline Solids* , **2005**, 351, 3579-3586	3.9	12
133	Structural and dynamic properties of vitreous and crystalline barium disilicate: molecular dynamics simulation and Raman scattering experiments. *Journal Physics D: Applied Physics*, **2016**, 49, 435301	3	12
132	Is the structural relaxation of glasses controlled by equilibrium shear viscosity?. *Journal of the American Ceramic Society*, **2021**, 104, 2066-2076	3.8	12
131	Porous bioactive scaffolds: characterization and biological performance in a model of tibial bone defect in rats. *Journal of Materials Science: Materials in Medicine*, **2015**, 26, 74	4.5	11
130	Effect of P2O5 on the Nonisothermal Sinter-Crystallization Process of a Lithium Aluminum Silicate Glass. *International Journal of Applied Ceramic Technology*, **2016**, 13, 948-955	2	11
129	Effect of Bromine on NaF Crystallization in Photo-Thermo-Refractive Glass. *Journal of the American Ceramic Society*, **2011**, 94, 2906-2911	3.8	11
128	Mechanical and tribological properties of a sintered glass-ceramic compared to granite and porcelainized stoneware. *Wear*, **2011**, 271, 875-880	3.5	11
127	Liquidâ□quid phase separation in alkali-borosilicate glass.. *Journal of Non-Crystalline Solids*, **2003**, 332, 166-172	3.9	11
126	Small angle X-ray scattering study of phase separation in glasses using a new position sensitive detector. *Nuclear Instruments & Methods in Physics Research*, **1983**, 208, 489-494		11
125	Crystallization of Supercooled Liquids: Self-Consistency Correction of the Steady-State Nucleation Rate. *Entropy*, **2020**, 22,	2.8	11
124	Critical assessment of the alleged failure of the Classical Nucleation Theory at low temperatures. *Journal of Non-Crystalline Solids*, **2020**, 547, 120297	3.9	11

123	Electron Paramagnetic Resonance (EPR) studies on the photo-thermo ionization process of photo-thermo-refractive glasses. *Journal of Non-Crystalline Solids*, **2016**, 452, 320-324	3.9	11
122	Characterization and biological evaluation of the introduction of PLGA into biosilicate. *Journal of Biomedical Materials Research - Part B Applied Biomaterials*, **2017**, 105, 1063-1074	3.5	10
121	Simulation and experimental study of the particle size distribution and pore effect on the crystallization of glass powders. *Acta Materialia*, **2019**, 175, 130-139	8.4	10
120	Non-stoichiometric crystallization of lithium metasilicateâ□alcium metasilicate glasses. Part 2 â□ Effect of the residual liquid. *Journal of Non-Crystalline Solids*, **2013**, 379, 131-144	3.9	10
119	On the thermodynamic driving force for interpretation of nucleation experiments. *Journal of Non-Crystalline Solids*, **2010**, 356, 2185-2191	3.9	10
118	Crystallization kinetics of 1Na2O•2CaO•3SiO2•glass monitored by electrical conductivity measurements. *Journal of Non-Crystalline Solids*, **2007**, 353, 2237-2243	3.9	10
117	Impedance spectroscopy of a soda-lime glass during sintering. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2003**, 352, 232-239	5.3	10
116	Model-driven design of bioactive glasses: from molecular dynamics through machine learning. *International Materials Reviews*, **2020**, 65, 297-321	16.1	10
115	Highly translucent nanostructured glass-ceramic. *Ceramics International*, **2021**, 47, 4707-4714	5.1	10
114	Molecular dynamics simulations of spontaneous and seeded nucleation and theoretical calculations for zinc selenide. *Computational Materials Science*, **2021**, 187, 110124	3.2	10
113	**2013**,		10
112	Crystallization pathways and some properties of lithium disilicate oxynitride glasses. *Ceramics International*, **2017**, 43, 12348-12356	5.1	9
111	Effects of lithium oxide on the crystallization kinetics of Na 2 O•2CaO•3SiO 2 glass. *Journal of Non-Crystalline Solids*, **2015**, 408, 102-114	3.9	9
110	Scintillation, luminescence and optical properties of Ce-Doped borosilicate glasses. *Optical Materials*, **2020**, 104, 109847	3.3	9
109	Liquidâ□iquid Phase Separation in Photo-Thermo-Refractive Glass. *Journal of the American Ceramic Society*, **2011**, 94, 145-150	3.8	9
108	Effect of structural relaxation on crystal nucleation in a soda-lime-silica glass. *Journal of the American Ceramic Society*, **2021**, 104, 3212-3223	3.8	9
107	In situ crystallization and elastic properties of transparent MgOâ□l2O3â□iO2 glass-ceramic. *Journal of the American Ceramic Society*, **2017**, 100, 2166-2175	3.8	8
106	Bioglass□ and resulting crystalline materials synthesized via an acetic acid-assisted solâ□el route. *Journal of Sol-Gel Science and Technology*, **2017**, 83, 165-173	2.3	8

105	Bioactive-glass ceramic with two crystalline phases (BioS-2P) for bone tissue engineering. *Biomedical Materials (Bristol)*, **2017**, 12, 045018	3.5	8
104	Nucleation kinetics in supercooled Ni50Ti50: Computer simulation data corroborate the validity of the Classical Nucleation Theory. *Chemical Physics Letters*, **2019**, 735, 136749	2.5	8
103	Bioactive glass and glass-ceramic orbital implants. *International Journal of Applied Ceramic Technology*, **2019**, 16, 1850-1863	2	8
102	Effect of non-stoichiometry on the crystal nucleation and growth in oxide glasses. *Acta Materialia*, **2019**, 180, 317-328	8.4	8
101	Analytical Model for Heterogeneous Crystallization Kinetics of Spherical Glass Particles. *Journal of the American Ceramic Society*, **2009**, 92, 2616-2618	3.8	8
100	On the variation of the maximum crystal nucleation rate temperature with glass transition temperature. *Journal of Non-Crystalline Solids*, **2016**, 442, 34-39	3.9	8
99	A new parameter for (normalized) evaluation of H-index: countries as a case study. *Scientometrics*, **2019**, 118, 1065-1078	3	8
98	Cation-doped bioactive ceramics: In vitro bioactivity and effect against bacteria of the oral cavity. *Ceramics International*, **2019**, 45, 9231-9244	5.1	7
97	Which glass stability parameters can assess the glass-forming ability of oxide systems?. *International Journal of Applied Glass Science*, **2020**, 11, 612-621	1.8	7
96	Broad-spectrum bactericidal activity of a new bioactive grafting material (F18) against clinically important bacterial strains. *International Journal of Antimicrobial Agents*, **2017**, 50, 730-733	14.3	7
95	The scientists pyramid. *Scientometrics*, **2006**, 69, 175-181	3	7
94	Scientific and technological development in Brazil. The widening gap. *Scientometrics*, **2002**, 55, 411-419	3	7
93	Primary Crystal Nucleation and Growth Regime Transition in Isotactic Polypropylene. *Journal of Macromolecular Science - Physics*, **2003**, 42, 387-401	1.4	7
92	Effect of liquid phase separation on crystal nucleation in glass-formers. Case closed. *Ceramics International*, **2020**, 46, 24779-24791	5.1	7
91	Bactericidal activity and biofilm inhibition of F18 bioactive glass against Staphylococcus aureus. *Materials Science and Engineering C*, **2021**, 118, 111475	8.3	7
90	Suitability of Biosilicate® glass-ceramic powder for additive manufacturing of highly porous scaffolds. *Ceramics International*, **2021**, 47, 8200-8207	5.1	7
89	Effect of titanium surface functionalization with bioactive glass on osseointegration: An experimental study in dogs. *Clinical Oral Implants Research*, **2018**, 29, 1120-1125	4.8	7
88	Effect of a Bioactive Glass Ceramic on the Control of Enamel and Dentin Erosion Lesions. *Brazilian Dental Journal*, **2017**, 28, 489-497	1.9	6

87	Evaluation of the guided random parameterization method for critical cooling rate calculations. *Journal of Non-Crystalline Solids*, **2012**, 358, 2626-2634	3.9	6
86	Adiabatic nucleation and crystallization of gels. *Journal of Non-Crystalline Solids*, **1990**, 121, 279-281	3.9	6
85	Designing optical glasses by machine learning coupled with a genetic algorithm. *Ceramics International*, **2021**, 47, 10555-10564	5.1	6
84	Understanding the mixed alkali effect on the sinterability and in vitro performance of bioactive glasses. *Journal of the European Ceramic Society*, **2021**, 41, 4391-4405	6	6
83	Biomaterials for orthopedics: anti-biofilm activity of a new bioactive glass coating on titanium implants. *Biofouling*, **2020**, 36, 234-244	3.3	6
82	Marine collagen scaffolds and photobiomodulation on bone healing process in a model of calvaria defects. *Journal of Bone and Mineral Metabolism*, **2020**, 38, 639-647	2.9	6
81	New, tough and strong lithium metasilicate dental glass-ceramic. *Ceramics International*, **2021**, 47, 2793-2801	5.1	6
80	Simple model for particle phase transformation kinetics. *Acta Materialia*, **2018**, 154, 228-236	8.4	6
79	Influence of the incorporation of marine spongin into a Biosilicate : an in vitro study. *Journal of Materials Science: Materials in Medicine*, **2019**, 30, 64	4.5	5
78	Off-stoichiometry effects on crystal nucleation and growth kinetics in soda-lime-silicate glasses. The combeite (Na2Oâ2CaOâ3SiO2) âdevitrite (Na2Oâ3CaOâ6SiO2) joint. *Acta Materialia*, **2020**, 196, 191-199	8.4	5
77	Structural aspects of the glass-to-crystal transition in sodium-calcium silicate glasses. *Journal of Non-Crystalline Solids*, **2020**, 535, 119844	3.9	5
76	Sintering and rounding kinetics of irregular glass particles. *Journal of the American Ceramic Society*, **2018**, 102, 845	3.8	5
75	Monitoring crystallization in lithium silicate glass-ceramics using 7 Li -n29 Si cross-polarization NMR. *Journal of Non-Crystalline Solids*, **2014**, 405, 163-169	3.9	5
74	Putty-like bone fillers based on CaP ceramics or Biosilicate combined with carboxymethylcellulose: Characterization, optimization, and evaluation. *Journal of Biomaterials Applications*, **2017**, 32, 276-288	2.9	5
73	Oxygen self-diffusion in a cordierite glass. *Journal of Non-Crystalline Solids*, **1998**, 242, 177-182	3.9	5
72	Theoretical assessment of systematic errors in volume fraction determinations by microscopy methods. *Journal of Materials Research*, **1998**, 13, 2045-2047	2.5	5
71	Tough, strong, hard, and chemically durable enstatite-zirconia glass-ceramic. *Journal of the American Ceramic Society*, **2020**, 103, 5036-5049	3.8	5
70	Chapter 2:Bioactive Glass-ceramics: Processing, Properties and Applications. *RSC Smart Materials*,27-60	0.6	5

69	Energy landscape modeling of crystal nucleation. *Acta Materialia*, **2021**, 217, 117163	8.4	5
68	Examining the role of nucleating agents within glass-ceramic systems. *Journal of Non-Crystalline Solids*, **2022**, 591, 121714	3.9	5
67	Non-stoichiometric crystallization of Li2SiO3-CaSiO3 glasses: Residual glass composition from ionic conductivity. *Journal of Non-Crystalline Solids*, **2019**, 510, 158-165	3.9	4
66	A novel bioactive agent improves adhesion of resin-modified glass-ionomer to dentin. *Journal of Adhesion Science and Technology*, **2015**, 29, 1543-1552	2	4
65	SEM and AFM characterization of surface of two RMGICs for degradation before and after modification with bioactive glass ceramic. *Journal of Adhesion Science and Technology*, **2016**, 30, 621-632	2	4
64	On the Determination of the Concentration of Crystal Nuclei in Glasses by DSC. *Journal of the American Ceramic Society*, **2013**, 96, 2817-2823	3.8	4
63	Cristalizaã e taxa crãtica de resfriamento para vitrificaã do poli(sebacato de decametileno). *Quimica Nova*, **2003**, 26, 202	1.6	4
62	Experimental gel containing bioactive glass-ceramic to minimize the pulp damage caused by dental bleaching in rats. *Journal of Applied Oral Science*, **2020**, 28, e20190384	3.3	4
61	In-situ Raman spectroscopy unveils metastable crystallization in lead metasilicate glass. *Journal of Non-Crystalline Solids*, **2020**, 546, 120254	3.9	4
60	Biosilicate Glass-Ceramic Foams From Refined Alkali Activation and Gel Casting. *Frontiers in Materials*, **2021**, 7,	4	4
59	Transparent glass-ceramic waveguides made by femtosecond laser writing. *Optics and Laser Technology*, **2021**, 136, 106742	4.2	4
58	Restorative Dental Glass-Ceramics: Current Status and Trends **2017**, 313-336		3
57	Crystallization mechanism and kinetics of a Fe-diopside (25CaO·25MgO·50SiO2) glassâceramic. *Journal of Materials Science*, **2019**, 54, 9313-9320	4.3	3
56	Marine spongin incorporation into Biosilicate for tissue engineering applications: An in vivo study. *Journal of Biomaterials Applications*, **2020**, 35, 205-214	2.9	3
55	Dominant Effect of Heterogeneous Dynamics on Homogenous Crystal Nucleation in Supercooled Liquids. *Frontiers in Physics*, **2020**, 8,	3.9	3
54	Structure and ionic conductivity of nitrated lithium disilicate (LiSiON) glasses. *Materials Chemistry and Physics*, **2018**, 211, 438-444	4.4	3
53	On the first patents, key inventions and research manuscripts about glass science & technology. *World Patent Information*, **2016**, 47, 54-66	1.4	3
52	Bibliometrics in glass and other sciences: A Plea for reason. *International Journal of Applied Glass Science*, **2017**, 8, 352-359	1.8	3

51	Relaxation effect on crystal nucleation in a glass unveiled by experimental, numerical, and analytical approaches. *Acta Materialia*, **2021**, 223, 117458	8.4	3
50	Speciation and polymerization in a barium silicate glass: Evidence from 29Si NMR and Raman spectroscopies. *Chemical Geology*, **2021**, 586, 120611	4.2	3
49	Effects of Bioactive Agents on Dentin Mineralization Kinetics After Dentin Bleaching. *Operative Dentistry*, **2020**, 45, 286-296	2.9	3
48	Effect of network formers and modifiers on the crystallization resistance of oxide glasses. *Journal of Non-Crystalline Solids*, **2020**, 550, 120359	3.9	3
47	Biofilm Formation and Expression of Virulence Genes of Microorganisms Grown in Contact with a New Bioactive Glass. *Pathogens*, **2020**, 9,	4.5	3
46	The race between relaxation and nucleation in supercooled liquid and glassy BaS â A molecular dynamics study. *Computational Materials Science*, **2021**, 192, 110417	3.2	3
45	Relaxation, crystal nucleation, kinetic spinodal and Kauzmann temperature in supercooled zinc selenide. *Computational Materials Science*, **2021**, 193, 110421	3.2	3
44	After bleaching enamel remineralization using a bioactive glass-ceramic (BioSilicate). *Biomedical Glasses*, **2016**, 2,	2.7	3
43	Structural characterization of boron-containing glassy and semi-crystalline Biosilicate by multinuclear NMR. *Journal of Non-Crystalline Solids*, **2019**, 505, 390-399	3.9	3
42	Development and evaluation of reparative tricalcium silicate-ZrO -Biosilicate composites. *Journal of Biomedical Materials Research - Part B Applied Biomaterials*, **2021**, 109, 468-476	3.5	3
41	Article age- and field-normalized tools to evaluate scientific impact and momentum. *Scientometrics*, **2021**, 126, 2865-2883	3	3
40	Scaffolds of bioactive glass-ceramic (Biosilicate) and bone healing: A biological evaluation in an experimental model of tibial bone defect in rats. *Bio-Medical Materials and Engineering*, **2018**, 29, 665-683	1	3
39	New engineered stones: Development and characterization of mineral-glass composites. *Composites Part B: Engineering*, **2019**, 167, 556-565	10	2
38	Response to comment on â he glassy state of matter: Its definition and ultimate fateâ *Journal of Non-Crystalline Solids*, **2018**, 502, 251-252	3.9	2
37	Effect of 830-nm laser phototherapy on olfactory neuronal ensheathing cells grown in vitro on novel bioscaffolds. *Journal of Applied Biomaterials and Functional Materials*, **2015**, 13, e234-40	1.8	2
36	Nano vitrocer mica de esc ia de aciaria. *Quimica Nova*, **2002**, 25, 731-735	1.6	2
35	Further evidence against the alleged failure of the classical nucleation theory below the glass transition range. *Journal of the American Ceramic Society*, **2021**, 104, 4537-4549	3.8	2
34	Assessing glass-ceramic homogeneity and nucleation self-correlation by crystallization statistics. *Journal of the American Ceramic Society*, **2021**, 104, 4459-4470	3.8	2

33	On the crystallization of gel-derived albite (NaAlSi3O8): the most stable oxide glass. *Journal of Sol-Gel Science and Technology*, **2016**, 80, 619-625	2.3	2
32	Comment on "Glass Transition, Crystallization of Glass-Forming Melts, and Entropy" 2018, , 103. *Entropy*, **2018**, 20,	2.8	2
31	Predicting and interpreting oxide glass properties by machine learning using large datasets. *Ceramics International*, **2021**, 47, 23958-23972	5.1	2
30	Fracture toughness and hardness of transparent MgOâ‚Al2O3âSiO2 glass-ceramics. *Ceramics International*, **2022**, 48, 9906-9917	5.1	2
29	Nucleation, Growth, and Crystallization in Oxide Glass-formers. A Current Perspective. *Reviews in Mineralogy and Geochemistry*, **2022**, 87, 405-429	7.1	2
28	Perspectives on the scientific career and impact of Prabhat K. Gupta. *Journal of Non-Crystalline Solids: X*, **2019**, 1, 100011	2.5	1
27	Prolificacy and visibility versus reputation in the hard sciences. *Scientometrics*, **2020**, 123, 207-221	3	1
26	Positron Annihilation in Phase-Separated BaO-SiO2 Glasses. *Journal of the American Ceramic Society* , **1983**, 66, C-37-C-38	3.8	1
25	The best diffusivity proxy for crystal nucleation in stoichiometric oxide glasses. *Ceramics International*, **2022**,	5.1	1
24	Viscous Flow of Glasses Forming Liquids: Experimental Techniques for the High Viscosity Range **1999**, 138-150		1
23	Effect of bioactive Biosilicate /F18 glass scaffolds on osteogenic differentiation of human adipose stem cells. *Journal of Biomedical Materials Research - Part A*, **2021**, 109, 1293-1308	5.4	1
22	Biocompatibility, induction of mineralization and antimicrobial activity of experimental intracanal pastes based on glass and glass-ceramic materials. *International Endodontic Journal*, **2020**, 53, 1494-1505	5.4	1
21	Conical Biosilicate Implant for Volume Augmentation in Anophthalmic Sockets. *Journal of Craniofacial Surgery*, **2020**, 31, 1838-1840	1.2	1
20	The Glassy State **2021**, 448-461		1
19	Optimizing the microstructure of a new machinable bioactive glass-ceramic. *Journal of the Mechanical Behavior of Biomedical Materials*, **2021**, 122, 104695	4.1	1
18	Competent F18 bioglass-Biosilicate bone graft scaffold substitutes. *Journal of the European Ceramic Society*, **2021**, 41, 7910-7910	6	1
17	Structure and mechanical properties of pyrope (Mg3Al2Si3O12) glass: Effect of high pressure. *International Journal of Applied Glass Science*,	1.8	1
16	Unveiling nucleation dynamics by seeded and spontaneous crystallization in supercooled liquids. *Computational Materials Science*, **2021**, 199, 110802	3.2	1

15	Unveiling relaxation and crystal nucleation interplay in supercooled germanium liquid. *Acta Materialia*, **2021**, 220, 117303	8.4	1
14	Assessment of the classical nucleation theory in supercooled nickel by molecular dynamics. *Materials Chemistry and Physics*, **2021**, 272, 125011	4.4	1
13	Sintering Kinetics of Crystallizing Glass Particles. A Review. *Ceramic Transactions*,163-179	0.1	1
12	A critical evaluation of barium silicate glass network polymerization. *Journal of Non-Crystalline Solids*, **2022**, 583, 121477	3.9	1
11	Crystallization-triggered bubbles in glass-ceramics. *Ceramics International*, **2020**, 46, 22513-22520	5.1	0
10	Biocompatibility, Biomineralization, and Maturation of Collagen by RTR , Bioglass and DM Bone Materials. *Brazilian Dental Journal*, **2020**, 31, 477-484	1.9	0
9	Resistencia al desgaste de recubrimientos sol-gel de SiO2 y SiO2 - ZrO2 sobre materiales vitrocer micos obtenidos por sinterizaci . *Boletin De La Sociedad Espanola De Ceramica Y Vidrio*, **2013**, 52, 225-230	1.9	0
8	Two-step sinter-crystallization of K2Oâ CaOâ P2O5â SiO2 (45S5-K) bioactive glass. *Ceramics International*, **2021**, 47, 18720-18731	5.1	0
7	Analysis of permeability and biological properties of dentin treated with experimental bioactive glasses. *Journal of Dentistry*, **2021**, 111, 103719	4.8	0
6	Direct determination of Lennard-Jones crystal surface free energy by a computational cleavage method. *Journal of Chemical Physics*, **2021**, 155, 094101	3.9	0
5	Influence of a melt derived bioactive glass (F18) over endothelial cells nitric oxide production. *Materials Letters: X*, **2019**, 3, 100022	0.5	
4	Influence of cation coordination on nucleation in silicate glasses. *Zeitschrift Fur Kristallographie - Crystalline Materials*, **1992**, 200, 287-294	1	
3	Comments on DTA/DSC Methods for Estimation of Crystal Nucleation Rates in Glass-Forming Melts. *Hot Topics in Thermal Analysis and Calorimetry*, **2012**, 325-350		
2	Nucleation, Growth, and Crystallization in Inorganic Glasses **2021**, 559-569		
1	Surface properties of a new lithium disilicate glass-ceramic after grinding. *Journal of Materials Science: Materials in Medicine*, **2021**, 32, 110	4.5	