

Edgar D Zanotto

List of Publications by Year in Descending Order

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

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	The best diffusivity proxy for crystal nucleation in stoichiometric oxide glasses. <i>Ceramics International</i> , 2022 ,	5.1	1
319	Fracture toughness and hardness of transparent MgO- Al_2O_3 - Bi_2O_3 glass-ceramics. <i>Ceramics International</i> , 2022 , 48, 9906-9917	5.1	2
318	A critical evaluation of barium silicate glass network polymerization. <i>Journal of Non-Crystalline Solids</i> , 2022 , 583, 121477	3.9	1
317	Nucleation, Growth, and Crystallization in Oxide Glass-formers. A Current Perspective. <i>Reviews in Mineralogy and Geochemistry</i> , 2022 , 87, 405-429	7.1	2
316	Examining the role of nucleating agents within glass-ceramic systems. <i>Journal of Non-Crystalline Solids</i> , 2022 , 591, 121714	3.9	5
315	Relaxation effect on crystal nucleation in a glass unveiled by experimental, numerical, and analytical approaches. <i>Acta Materialia</i> , 2021 , 223, 117458	8.4	3
314	Speciation and polymerization in a barium silicate glass: Evidence from ^{29}Si NMR and Raman spectroscopies. <i>Chemical Geology</i> , 2021 , 586, 120611	4.2	3
313	Effect of bioactive Biosilicate /F18 glass scaffolds on osteogenic differentiation of human adipose stem cells. <i>Journal of Biomedical Materials Research - Part A</i> , 2021 , 109, 1293-1308	5.4	1
312	Effect of structural relaxation on crystal nucleation in a soda-lime-silica glass. <i>Journal of the American Ceramic Society</i> , 2021 , 104, 3212-3223	3.8	9
311	Biosilicate- SiO_2 Glass-Ceramic Foams From Refined Alkali Activation and Gel Casting. <i>Frontiers in Materials</i> , 2021 , 7,	4	4
310	Designing optical glasses by machine learning coupled with a genetic algorithm. <i>Ceramics International</i> , 2021 , 47, 10555-10564	5.1	6
309	The race between relaxation and nucleation in supercooled liquid and glassy BaS SiO_2 molecular dynamics study. <i>Computational Materials Science</i> , 2021 , 192, 110417	3.2	3
308	Further evidence against the alleged failure of the classical nucleation theory below the glass transition range. <i>Journal of the American Ceramic Society</i> , 2021 , 104, 4537-4549	3.8	2
307	Assessing glass-ceramic homogeneity and nucleation self-correlation by crystallization statistics. <i>Journal of the American Ceramic Society</i> , 2021 , 104, 4459-4470	3.8	2
306	Relaxation, crystal nucleation, kinetic spinodal and Kauzmann temperature in supercooled zinc selenide. <i>Computational Materials Science</i> , 2021 , 193, 110421	3.2	3
305	Understanding the mixed alkali effect on the sinterability and in vitro performance of bioactive glasses. <i>Journal of the European Ceramic Society</i> , 2021 , 41, 4391-4405	6	6
304	Highly translucent nanostructured glass-ceramic. <i>Ceramics International</i> , 2021 , 47, 4707-4714	5.1	10

303	New, tough and strong lithium metasilicate dental glass-ceramic. <i>Ceramics International</i> , 2021 , 47, 2793-2801	6
302	Bactericidal activity and biofilm inhibition of F18 bioactive glass against <i>Staphylococcus aureus</i> . <i>Materials Science and Engineering C</i> , 2021 , 118, 111475	8.3 7
301	Effect of structural relaxation on crystal nucleation in glasses. <i>Acta Materialia</i> , 2021 , 203, 116472	8.4 13
300	Suitability of Biosilicate [®] glass-ceramic powder for additive manufacturing of highly porous scaffolds. <i>Ceramics International</i> , 2021 , 47, 8200-8207	5.1 7
299	Transparent glass-ceramic waveguides made by femtosecond laser writing. <i>Optics and Laser Technology</i> , 2021 , 136, 106742	4.2 4
298	Molecular dynamics simulations of spontaneous and seeded nucleation and theoretical calculations for zinc selenide. <i>Computational Materials Science</i> , 2021 , 187, 110124	3.2 10
297	Is the structural relaxation of glasses controlled by equilibrium shear viscosity?. <i>Journal of the American Ceramic Society</i> , 2021 , 104, 2066-2076	3.8 12
296	Development and evaluation of reparative tricalcium silicate-ZrO ₂ -Biosilicate composites. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2021 , 109, 468-476	3.5 3
295	The Glassy State 2021 , 448-461	1
294	Nucleation, Growth, and Crystallization in Inorganic Glasses 2021 , 559-569	
293	Article age- and field-normalized tools to evaluate scientific impact and momentum. <i>Scientometrics</i> , 2021 , 126, 2865-2883	3 3
292	Two-step sinter-crystallization of K ₂ O-CaO-B ₂ O ₅ -Bi ₂ O ₃ (45S5-K) bioactive glass. <i>Ceramics International</i> , 2021 , 47, 18720-18731	5.1 0
291	Optimizing the microstructure of a new machinable bioactive glass-ceramic. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021 , 122, 104695	4.1 1
290	Analysis of permeability and biological properties of dentin treated with experimental bioactive glasses. <i>Journal of Dentistry</i> , 2021 , 111, 103719	4.8 0
289	Surface properties of a new lithium disilicate glass-ceramic after grinding. <i>Journal of Materials Science: Materials in Medicine</i> , 2021 , 32, 110	4.5
288	Competent F18 bioglass-Biosilicate [®] bone graft scaffold substitutes. <i>Journal of the European Ceramic Society</i> , 2021 , 41, 7910-7910	6 1
287	Energy landscape modeling of crystal nucleation. <i>Acta Materialia</i> , 2021 , 217, 117163	8.4 5
286	Direct determination of Lennard-Jones crystal surface free energy by a computational cleavage method. <i>Journal of Chemical Physics</i> , 2021 , 155, 094101	3.9 0

285	Predicting and interpreting oxide glass properties by machine learning using large datasets. <i>Ceramics International</i> , 2021 , 47, 23958-23972	5.1	2
284	Unveiling nucleation dynamics by seeded and spontaneous crystallization in supercooled liquids. <i>Computational Materials Science</i> , 2021 , 199, 110802	3.2	1
283	Unveiling relaxation and crystal nucleation interplay in supercooled germanium liquid. <i>Acta Materialia</i> , 2021 , 220, 117303	8.4	1
282	Assessment of the classical nucleation theory in supercooled nickel by molecular dynamics. <i>Materials Chemistry and Physics</i> , 2021 , 272, 125011	4.4	1
281	Marine spongin incorporation into Biosilicate [®] for tissue engineering applications: An in vivo study. <i>Journal of Biomaterials Applications</i> , 2020 , 35, 205-214	2.9	3
280	Crystallization-triggered bubbles in glass-ceramics. <i>Ceramics International</i> , 2020 , 46, 22513-22520	5.1	0
279	Which glass stability parameters can assess the glass-forming ability of oxide systems?. <i>International Journal of Applied Glass Science</i> , 2020 , 11, 612-621	1.8	7
278	Off-stoichiometry effects on crystal nucleation and growth kinetics in soda-lime-silicate glasses. The combeite (Na ₂ O-CaO-B ₂ O ₃ -SiO ₂) devitrite (Na ₂ O-CaO-B ₂ O ₃ -SiO ₂) joint. <i>Acta Materialia</i> , 2020 , 196, 191-199	8.4	5
277	Dominant Effect of Heterogeneous Dynamics on Homogenous Crystal Nucleation in Supercooled Liquids. <i>Frontiers in Physics</i> , 2020 , 8,	3.9	3
276	Structural aspects of the glass-to-crystal transition in sodium-calcium silicate glasses. <i>Journal of Non-Crystalline Solids</i> , 2020 , 535, 119844	3.9	5
275	Explainable Machine Learning Algorithms For Predicting Glass Transition Temperatures. <i>Acta Materialia</i> , 2020 , 188, 92-100	8.4	27
274	Prolificacy and visibility versus reputation in the hard sciences. <i>Scientometrics</i> , 2020 , 123, 207-221	3	1
273	Scintillation, luminescence and optical properties of Ce-Doped borosilicate glasses. <i>Optical Materials</i> , 2020 , 104, 109847	3.3	9
272	Tough, strong, hard, and chemically durable enstatite-zirconia glass-ceramic. <i>Journal of the American Ceramic Society</i> , 2020 , 103, 5036-5049	3.8	5
271	Experimental gel containing bioactive glass-ceramic to minimize the pulp damage caused by dental bleaching in rats. <i>Journal of Applied Oral Science</i> , 2020 , 28, e20190384	3.3	4
270	Biocompatibility, Biom mineralization, and Maturation of Collagen by RTR [®] , Bioglass and DM Bone [®] Materials. <i>Brazilian Dental Journal</i> , 2020 , 31, 477-484	1.9	0
269	Crystallization of Supercooled Liquids: Self-Consistency Correction of the Steady-State Nucleation Rate. <i>Entropy</i> , 2020 , 22,	2.8	11
268	Effects of Bioactive Agents on Dentin Mineralization Kinetics After Dentin Bleaching. <i>Operative Dentistry</i> , 2020 , 45, 286-296	2.9	3

267	Model-driven design of bioactive glasses: from molecular dynamics through machine learning. <i>International Materials Reviews</i> , 2020 , 65, 297-321	16.1	10
266	Effect of network formers and modifiers on the crystallization resistance of oxide glasses. <i>Journal of Non-Crystalline Solids</i> , 2020 , 550, 120359	3.9	3
265	In-situ Raman spectroscopy unveils metastable crystallization in lead metasilicate glass. <i>Journal of Non-Crystalline Solids</i> , 2020 , 546, 120254	3.9	4
264	Effect of liquid phase separation on crystal nucleation in glass-formers. Case closed. <i>Ceramics International</i> , 2020 , 46, 24779-24791	5.1	7
263	Biofilm Formation and Expression of Virulence Genes of Microorganisms Grown in Contact with a New Bioactive Glass. <i>Pathogens</i> , 2020 , 9,	4.5	3
262	Biocompatibility, induction of mineralization and antimicrobial activity of experimental intracanal pastes based on glass and glass-ceramic materials. <i>International Endodontic Journal</i> , 2020 , 53, 1494-1505 ^{5.4}	5.4	1
261	Critical assessment of the alleged failure of the Classical Nucleation Theory at low temperatures. <i>Journal of Non-Crystalline Solids</i> , 2020 , 547, 120297	3.9	11
260	Effects of Glass Transition and Structural Relaxation on Crystal Nucleation: Theoretical Description and Model Analysis. <i>Entropy</i> , 2020 , 22,	2.8	15
259	Conical Biosilicate Implant for Volume Augmentation in Anophthalmic Sockets. <i>Journal of Craniofacial Surgery</i> , 2020 , 31, 1838-1840	1.2	1
258	Crystal Nucleation Kinetics in Supercooled Germanium: MD Simulations versus Experimental Data. <i>Journal of Physical Chemistry B</i> , 2020 , 124, 7979-7988	3.4	13
257	Viscosity and liquidus-based predictor of glass-forming ability of oxide glasses. <i>Journal of the American Ceramic Society</i> , 2020 , 103, 921-932	3.8	15
256	Residual stress effect on the fracture toughness of lithium disilicate glass-ceramics. <i>Journal of the American Ceramic Society</i> , 2020 , 103, 465-479	3.8	17
255	Biomaterials for orthopedics: anti-biofilm activity of a new bioactive glass coating on titanium implants. <i>Biofouling</i> , 2020 , 36, 234-244	3.3	6
254	Marine collagen scaffolds and photobiomodulation on bone healing process in a model of calvaria defects. <i>Journal of Bone and Mineral Metabolism</i> , 2020 , 38, 639-647	2.9	6
253	Nucleation kinetics in supercooled Ni ₅₀ Ti ₅₀ : Computer simulation data corroborate the validity of the Classical Nucleation Theory. <i>Chemical Physics Letters</i> , 2019 , 735, 136749	2.5	8
252	Successful test of the classical nucleation theory by molecular dynamic simulations of BaS. <i>Computational Materials Science</i> , 2019 , 161, 99-106	3.2	19
251	Influence of the incorporation of marine spongin into a Biosilicate [®] : an in vitro study. <i>Journal of Materials Science: Materials in Medicine</i> , 2019 , 30, 64	4.5	5
250	Simulation and experimental study of the particle size distribution and pore effect on the crystallization of glass powders. <i>Acta Materialia</i> , 2019 , 175, 130-139	8.4	10

249	Understanding Glass through Differential Scanning Calorimetry. <i>Chemical Reviews</i> , 2019 , 119, 7848-7939	68.1	124
248	Transparent glass-ceramics for ballistic protection: materials and challenges. <i>Journal of Materials Research and Technology</i> , 2019 , 8, 3357-3372	5.5	14
247	Perspectives on the scientific career and impact of Prabhat K. Gupta. <i>Journal of Non-Crystalline Solids: X</i> , 2019 , 1, 100011	2.5	1
246	Bioactive glass and glass-ceramic orbital implants. <i>International Journal of Applied Ceramic Technology</i> , 2019 , 16, 1850-1863	2	8
245	New engineered stones: Development and characterization of mineral-glass composites. <i>Composites Part B: Engineering</i> , 2019 , 167, 556-565	10	2
244	The origin of the unusual DSC peaks of supercooled barium disilicate liquid. <i>CrystEngComm</i> , 2019 , 21, 2768-2778	3.3	18
243	Crystallization mechanism and kinetics of a Fe-diopside (25CaO·25MgO·50SiO ₂) glass-ceramic. <i>Journal of Materials Science</i> , 2019 , 54, 9313-9320	4.3	3
242	Non-stoichiometric crystallization of Li ₂ SiO ₃ -CaSiO ₃ glasses: Residual glass composition from ionic conductivity. <i>Journal of Non-Crystalline Solids</i> , 2019 , 510, 158-165	3.9	4
241	Cation-doped bioactive ceramics: In vitro bioactivity and effect against bacteria of the oral cavity. <i>Ceramics International</i> , 2019 , 45, 9231-9244	5.1	7
240	Biosilicate scaffolds produced by 3D-printing and direct foaming using preceramic polymers. <i>Journal of the American Ceramic Society</i> , 2019 , 102, 1010-1020	3.8	18
239	Influence of a melt derived bioactive glass (F18) over endothelial cells nitric oxide production. <i>Materials Letters: X</i> , 2019 , 3, 100022	0.5	
238	Effect of non-stoichiometry on the crystal nucleation and growth in oxide glasses. <i>Acta Materialia</i> , 2019 , 180, 317-328	8.4	8
237	Bioactive magnetic glass-ceramics for cancer treatment. <i>Biomedical Glasses</i> , 2019 , 5, 148-177	2.7	13
236	In vitro biocompatibility of new bioactive lithia-silica glass-ceramics. <i>Materials Science and Engineering C</i> , 2019 , 94, 117-125	8.3	19
235	Structural characterization of boron-containing glassy and semi-crystalline Biosilicate by multinuclear NMR. <i>Journal of Non-Crystalline Solids</i> , 2019 , 505, 390-399	3.9	3
234	A new parameter for (normalized) evaluation of H-index: countries as a case study. <i>Scientometrics</i> , 2019 , 118, 1065-1078	3	8
233	Structure and ionic conductivity of nitrated lithium disilicate (LiSiON) glasses. <i>Materials Chemistry and Physics</i> , 2018 , 211, 438-444	4.4	3
232	Updated definition of glass-ceramics. <i>Journal of Non-Crystalline Solids</i> , 2018 , 501, 3-10	3.9	157

231	Response to comment on "The glassy state of matter: Its definition and ultimate fate" <i>Journal of Non-Crystalline Solids</i> , 2018 , 502, 251-252	3.9	2
230	Crystal growth and viscous flow in barium disilicate glass. <i>Journal of Non-Crystalline Solids</i> , 2018 , 479, 55-61	3.9	23
229	The diffusion coefficient controlling crystal growth in a silicate glass-former. <i>International Journal of Applied Glass Science</i> , 2018 , 9, 373-382	1.8	12
228	X-ray Absorption Fine Structure (XAFS) Studies of Oxide Glasses-A 45-Year Overview. <i>Materials</i> , 2018 , 11,	3.5	32
227	The race within supercooled liquids-Relaxation versus crystallization. <i>Journal of Chemical Physics</i> , 2018 , 149, 024503	3.9	19
226	Raman scattering and molecular dynamics investigation of lead metasilicate glass and supercooled liquid structures. <i>Journal of Non-Crystalline Solids</i> , 2018 , 499, 300-308	3.9	12
225	Electrospun F18 Bioactive Glass/PCL-Poly (E-caprolactone)-Membrane for Guided Tissue Regeneration. <i>Materials</i> , 2018 , 11,	3.5	26
224	Sintering and rounding kinetics of irregular glass particles. <i>Journal of the American Ceramic Society</i> , 2018 , 102, 845	3.8	5
223	Predicting glass transition temperatures using neural networks. <i>Acta Materialia</i> , 2018 , 159, 249-256	8.4	70
222	New sintered wollastonite glass-ceramic for biomedical applications. <i>Ceramics International</i> , 2018 , 44, 20019-20027	5.1	15
221	Predicting homogeneous nucleation rates in silicate glass-formers. <i>Journal of Non-Crystalline Solids</i> , 2018 , 500, 231-234	3.9	17
220	Diffusivity, Interfacial Free Energy, and Crystal Nucleation in a Supercooled Lennard-Jones Liquid. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 28884-28894	3.8	32
219	Scaffolds of bioactive glass-ceramic (Biosilicate [®]) and bone healing: A biological evaluation in an experimental model of tibial bone defect in rats. <i>Bio-Medical Materials and Engineering</i> , 2018 , 29, 665-683	1	3
218	Effect of titanium surface functionalization with bioactive glass on osseointegration: An experimental study in dogs. <i>Clinical Oral Implants Research</i> , 2018 , 29, 1120-1125	4.8	7
217	Comment on "Glass Transition, Crystallization of Glass-Forming Melts, and Entropy" 2018, , 103. <i>Entropy</i> , 2018 , 20,	2.8	2
216	Simple model for particle phase transformation kinetics. <i>Acta Materialia</i> , 2018 , 154, 228-236	8.4	6
215	A Raman investigation of the structural evolution of supercooled liquid barium disilicate during crystallization. <i>International Journal of Applied Glass Science</i> , 2018 , 9, 510-517	1.8	15
214	Characterization and biological evaluation of the introduction of PLGA into biosilicate. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2017 , 105, 1063-1074	3.5	10

213	Characterization and biocompatibility of a fibrous glassy scaffold. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2017 , 11, 1141-1151	4.4	19
212	In situ crystallization and elastic properties of transparent MgO- Al_2O_3 - SiO_2 glass-ceramic. <i>Journal of the American Ceramic Society</i> , 2017 , 100, 2166-2175	3.8	8
211	Ionic conductivity and mixed-ion effect in mixed alkali metaphosphate glasses. <i>Physical Chemistry Chemical Physics</i> , 2017 , 19, 6594-6600	3.6	13
210	A guided walk through Larry Hench's monumental discoveries. <i>Journal of Materials Science</i> , 2017 , 52, 8695-8732	4.3	16
209	Bioactive gel-glasses with distinctly different compositions: Bioactivity, viability of stem cells and antibiofilm effect against <i>Streptococcus mutans</i> . <i>Materials Science and Engineering C</i> , 2017 , 76, 233-241	8.3	21
208	The microscopic origin of the extreme glass-forming ability of Albite and BO. <i>Scientific Reports</i> , 2017 , 7, 43022	4.9	25
207	Crystallization, mechanical, and optical properties of transparent, nanocrystalline gahnite glass-ceramics. <i>Journal of the American Ceramic Society</i> , 2017 , 100, 1963-1975	3.8	32
206	Microstructure and mechanical properties of nucleant-free Li ₂ O-CaO-SiO ₂ glass-ceramics. <i>Acta Materialia</i> , 2017 , 130, 347-360	8.4	25
205	Biosilicate/PLGA osteogenic effects modulated by laser therapy: In vitro and in vivo studies. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2017 , 173, 258-265	6.7	22
204	Restorative Dental Glass-Ceramics: Current Status and Trends 2017 , 313-336		3
203	Bioglass [®] and resulting crystalline materials synthesized via an acetic acid-assisted sol-gel route. <i>Journal of Sol-Gel Science and Technology</i> , 2017 , 83, 165-173	2.3	8
202	Crystallization pathways and some properties of lithium disilicate oxynitride glasses. <i>Ceramics International</i> , 2017 , 43, 12348-12356	5.1	9
201	Bioactive-glass ceramic with two crystalline phases (BioS-2P) for bone tissue engineering. <i>Biomedical Materials (Bristol)</i> , 2017 , 12, 045018	3.5	8
200	The glassy state of matter: Its definition and ultimate fate. <i>Journal of Non-Crystalline Solids</i> , 2017 , 471, 490-495	3.9	135
199	Glass-ceramics and realization of the unobtainable: Property combinations that push the envelope. <i>MRS Bulletin</i> , 2017 , 42, 195-199	3.2	33
198	New highly bioactive crystallization-resistant glass for tissue engineering applications. <i>Translational Materials Research</i> , 2017 , 4, 014002		18
197	A review of the photo-thermal mechanism and crystallization of photo-thermo-refractive (PTR) glass. <i>International Materials Reviews</i> , 2017 , 62, 348-366	16.1	21
196	Bioactive Glass Fiber-Reinforced PGS Matrix Composites for Cartilage Regeneration. <i>Materials</i> , 2017 , 10,	3.5	24

195	Effect of a Bioactive Glass Ceramic on the Control of Enamel and Dentin Erosion Lesions. <i>Brazilian Dental Journal</i> , 2017 , 28, 489-497	1.9	6
194	Heating rate effects in time-dependent homogeneous nucleation in glasses. <i>Journal of Non-Crystalline Solids</i> , 2017 , 474, 1-8	3.9	19
193	Putty-like bone fillers based on CaP ceramics or Biosilicate [®] combined with carboxymethylcellulose: Characterization, optimization, and evaluation. <i>Journal of Biomaterials Applications</i> , 2017 , 32, 276-288	2.9	5
192	Broad-spectrum bactericidal activity of a new bioactive grafting material (F18) against clinically important bacterial strains. <i>International Journal of Antimicrobial Agents</i> , 2017 , 50, 730-733	14.3	7
191	Elemental and cooperative diffusion in a liquid, supercooled liquid and glass resolved. <i>Journal of Chemical Physics</i> , 2017 , 147, 014501	3.9	16
190	Bioactive and inert dental glass-ceramics. <i>Journal of Biomedical Materials Research - Part A</i> , 2017 , 105, 619-639	5.4	79
189	Bibliometrics in glass and other sciences: A Plea for reason. <i>International Journal of Applied Glass Science</i> , 2017 , 8, 352-359	1.8	3
188	Biosilicate [®] - A multipurpose, highly bioactive glass-ceramic. In vitro, in vivo and clinical trials. <i>Journal of Non-Crystalline Solids</i> , 2016 , 432, 90-110	3.9	92
187	Effect of P2O5 on the Nonisothermal Sinter-Crystallization Process of a Lithium Aluminum Silicate Glass. <i>International Journal of Applied Ceramic Technology</i> , 2016 , 13, 948-955	2	11
186	On the first patents, key inventions and research manuscripts about glass science & technology. <i>World Patent Information</i> , 2016 , 47, 54-66	1.4	3
185	Novel Double-Layered Conduit Containing Highly Bioactive Glass Fibers for Potential Nerve Guide Application. <i>International Journal of Applied Glass Science</i> , 2016 , 7, 183-194	1.8	15
184	SEM and AFM characterization of surface of two RMGICs for degradation before and after modification with bioactive glass ceramic. <i>Journal of Adhesion Science and Technology</i> , 2016 , 30, 621-632 ²		4
183	The effect of elastic stresses on the thermodynamic barrier for crystal nucleation. <i>Journal of Non-Crystalline Solids</i> , 2016 , 432, 325-333	3.9	49
182	History and trends of bioactive glass-ceramics. <i>Journal of Biomedical Materials Research - Part A</i> , 2016 , 104, 1231-49	5.4	77
181	Determination of Crystal Growth Rates in Glasses Over a Temperature Range Using a Single DSC Run. <i>Journal of the American Ceramic Society</i> , 2016 , 99, 2001-2008	3.8	13
180	Role of dynamic heterogeneities in crystal nucleation kinetics in an oxide supercooled liquid. <i>Journal of Chemical Physics</i> , 2016 , 145, 211920	3.9	33
179	After bleaching enamel remineralization using a bioactive glass-ceramic (BioSilicate [®]). <i>Biomedical Glasses</i> , 2016 , 2,	2.7	3
178	Crystal nucleation in glass-forming liquids: Variation of the size of the "structural units" with temperature. <i>Journal of Non-Crystalline Solids</i> , 2016 , 447, 35-44	3.9	51

177	On the variation of the maximum crystal nucleation rate temperature with glass transition temperature. <i>Journal of Non-Crystalline Solids</i> , 2016 , 442, 34-39	3.9	8
176	Structural and dynamic properties of vitreous and crystalline barium disilicate: molecular dynamics simulation and Raman scattering experiments. <i>Journal Physics D: Applied Physics</i> , 2016 , 49, 435301	3	12
175	Electron Paramagnetic Resonance (EPR) studies on the photo-thermo ionization process of photo-thermo-refractive glasses. <i>Journal of Non-Crystalline Solids</i> , 2016 , 452, 320-324	3.9	11
174	On the crystallization of gel-derived albite (NaAlSi ₃ O ₈): the most stable oxide glass. <i>Journal of Sol-Gel Science and Technology</i> , 2016 , 80, 619-625	2.3	2
173	A clinical, randomized, controlled study on the use of desensitizing agents during tooth bleaching. <i>Journal of Dentistry</i> , 2015 , 43, 1099-1105	4.8	35
172	A novel bioactive agent improves adhesion of resin-modified glass-ionomer to dentin. <i>Journal of Adhesion Science and Technology</i> , 2015 , 29, 1543-1552	2	4
171	Porous bioactive scaffolds: characterization and biological performance in a model of tibial bone defect in rats. <i>Journal of Materials Science: Materials in Medicine</i> , 2015 , 26, 74	4.5	11
170	Effect of a new bioactive fibrous glassy scaffold on bone repair. <i>Journal of Materials Science: Materials in Medicine</i> , 2015 , 26, 177	4.5	27
169	Bone regeneration and gene expression in bone defects under healthy and osteoporotic bone conditions using two commercially available bone graft substitutes. <i>Biomedical Materials (Bristol)</i> , 2015 , 10, 035003	3.5	14
168	Crystallization in glass-forming liquids: Effects of fragility and glass transition temperature. <i>Journal of Non-Crystalline Solids</i> , 2015 , 428, 68-74	3.9	28
167	Crystallization of glass-forming liquids: Maxima of nucleation, growth, and overall crystallization rates. <i>Journal of Non-Crystalline Solids</i> , 2015 , 429, 24-32	3.9	68
166	Crystallization in glass-forming liquids: Effects of decoupling of diffusion and viscosity on crystal growth. <i>Journal of Non-Crystalline Solids</i> , 2015 , 429, 45-53	3.9	45
165	Effects of lithium oxide on the crystallization kinetics of Na ₂ O·2CaO·3SiO ₂ glass. <i>Journal of Non-Crystalline Solids</i> , 2015 , 408, 102-114	3.9	9
164	Effect of 830-nm laser phototherapy on olfactory neuronal ensheathing cells grown in vitro on novel bioscaffolds. <i>Journal of Applied Biomaterials and Functional Materials</i> , 2015 , 13, e234-40	1.8	2
163	Sol-gel synthesis, structure, sintering and properties of bioactive and inert nano-apatite-zirconia glass-ceramics. <i>Ceramics International</i> , 2015 , 41, 11024-11045	5.1	42
162	Bioactivity and cell proliferation in radiopaque gel-derived CaO-P ₂ O ₅ -SiO ₂ -ZrO ₂ glass and glass-ceramic powders. <i>Materials Science and Engineering C</i> , 2015 , 55, 436-47	8.3	47
161	Thirty-year quest for structure-nucleation relationships in oxide glasses. <i>International Materials Reviews</i> , 2015 , 60, 376-391	16.1	57
160	Crystallization toughening of a model glass-ceramic. <i>Acta Materialia</i> , 2015 , 86, 216-228	8.4	108

159	Two Centuries of Glass Research: Historical Trends, Current Status, and Grand Challenges for the Future. <i>International Journal of Applied Glass Science</i> , 2014 , 5, 313-327	1.8	87
158	Injectable composites based on biosilicate \square and alginate: handling and in vitro characterization. <i>RSC Advances</i> , 2014 , 4, 45778-45785	3.7	19
157	Monitoring crystallization in lithium silicate glass-ceramics using ^7Li - ^{29}Si cross-polarization NMR. <i>Journal of Non-Crystalline Solids</i> , 2014 , 405, 163-169	3.9	5
156	Incorporation of bioactive glass in calcium phosphate cement: An evaluation. <i>Acta Biomaterialia</i> , 2013 , 9, 5728-39	10.8	48
155	Crystal nucleation and growth kinetics of NaF in photo-thermo-refractive glass. <i>Journal of Non-Crystalline Solids</i> , 2013 , 378, 115-120	3.9	22
154	The influence of phosphorus precursors on the synthesis and bioactivity of $\text{SiO}_2\text{-CaO-P}_2\text{O}_5$ sol-gel glasses and glass-ceramics. <i>Journal of Materials Science: Materials in Medicine</i> , 2013 , 24, 365-79	4.5	46
153	On the Determination of the Concentration of Crystal Nuclei in Glasses by DSC. <i>Journal of the American Ceramic Society</i> , 2013 , 96, 2817-2823	3.8	4
152	Non-stoichiometric crystallization of lithium metasilicate \square calcium metasilicate glasses. Part 2 \square Effect of the residual liquid. <i>Journal of Non-Crystalline Solids</i> , 2013 , 379, 131-144	3.9	10
151	Effect of magnesium ion incorporation on the thermal stability, dissolution behavior and bioactivity in Bioglass-derived glasses. <i>Journal of Non-Crystalline Solids</i> , 2013 , 382, 57-65	3.9	39
150	Incorporation of bioactive glass in calcium phosphate cement: material characterization and in vitro degradation. <i>Journal of Biomedical Materials Research - Part A</i> , 2013 , 101, 2365-73	5.4	31
149	Nonstoichiometric crystallization of lithium metasilicate \square calcium metasilicate glasses. Part 1 \square Crystal nucleation and growth rates. <i>Journal of Non-Crystalline Solids</i> , 2013 , 362, 56-64	3.9	14
148	Effects of biosilicate(\square) scaffolds and low-level laser therapy on the process of bone healing. <i>Photomedicine and Laser Surgery</i> , 2013 , 31, 252-60		32
147	Glass Crystallization Research \square A 36-Year Retrospective. Part I, Fundamental Studies. <i>International Journal of Applied Glass Science</i> , 2013 , 4, 105-116	1.8	44
146	Glass Crystallization Research \square A 36-Year Retrospective. Part II, Methods of Study and Glass-Ceramics. <i>International Journal of Applied Glass Science</i> , 2013 , 4, 117-124	1.8	19
145	New Sintered $\text{Li}_2\text{O}\square\text{Al}_2\text{O}_3\square\text{Bi}_2\text{O}_3$ Ultra-Low Expansion Glass-Ceramic. <i>Journal of the American Ceramic Society</i> , 2013 , 96, 1143-1149	3.8	34
144	Histopathological, cytotoxicity and genotoxicity evaluation of Biosilicate \square glass-ceramic scaffolds. <i>Journal of Biomedical Materials Research - Part A</i> , 2013 , 101, 667-73	5.4	29
143	Characterization and in vivo biological performance of biosilicate. <i>BioMed Research International</i> , 2013 , 2013, 141427	3	40
142	Biosilicate-gelatin bone scaffolds by the foam replica technique: development and characterization. <i>Science and Technology of Advanced Materials</i> , 2013 , 14, 045008	7.1	36

141	Resistencia al desgaste de recubrimientos sol-gel de SiO ₂ y SiO ₂ - ZrO ₂ sobre materiales vitrocerámicos obtenidos por sinterización. <i>Boletín De La Sociedad Española De Cerámica Y Vidrio</i> , 2013 , 52, 225-230	1.9	0
140	2013 ,		10
139	Biocompatibility analysis of bioglass 45S5 and biosilicate implants in the rabbit eviscerated socket. <i>Orbit</i> , 2012 , 31, 143-9	1.5	26
138	Effect of a bioactive glass-ceramic on the apatite nucleation on titanium surface modified by micro-arc oxidation. <i>Surface and Coatings Technology</i> , 2012 , 206, 4601-4605	4.4	12
137	Internal residual stresses in glass-ceramics: A review. <i>Journal of Non-Crystalline Solids</i> , 2012 , 358, 975-984.	3.9	85
136	Evaluation of the guided random parameterization method for critical cooling rate calculations. <i>Journal of Non-Crystalline Solids</i> , 2012 , 358, 2626-2634	3.9	6
135	Non-isothermal sinter-crystallization of jagged Li ₂ O-Al ₂ O ₃ -SiO ₂ glass and simulation using a modified form of the Clusters model. <i>Journal of Non-Crystalline Solids</i> , 2012 , 358, 3234-3242	3.9	30
134	Compositional and microstructural design of highly bioactive P ₂ O ₅ -Na ₂ O-CaO-SiO ₂ glass-ceramics. <i>Acta Biomaterialia</i> , 2012 , 8, 321-32	10.8	91
133	Comments on DTA/DSC Methods for Estimation of Crystal Nucleation Rates in Glass-Forming Melts. <i>Hot Topics in Thermal Analysis and Calorimetry</i> , 2012 , 325-350		
132	Dynamic processes in a silicate liquid from above melting to below the glass transition. <i>Journal of Chemical Physics</i> , 2011 , 135, 194703	3.9	70
131	Biosilicato : histórico de uma vitrocerâmica brasileira de elevada bioatividade. <i>Química Nova</i> , 2011 , 34, 1231-1241	1.6	13
130	The effect of a novel crystallised bioactive glass-ceramic powder on dentine hypersensitivity: a long-term clinical study. <i>Journal of Oral Rehabilitation</i> , 2011 , 38, 253-62	3.4	34
129	Liquid-Liquid Phase Separation in Photo-Thermo-Refractive Glass. <i>Journal of the American Ceramic Society</i> , 2011 , 94, 145-150	3.8	9
128	Internal Residual Stresses in Sintered and Commercial Low Expansion Li ₂ O-Al ₂ O ₃ -SiO ₂ Glass-Ceramics. <i>Journal of the American Ceramic Society</i> , 2011 , 94, 1206-1214	3.8	43
127	Internal Residual Stresses in Partially Crystallized Photo-Thermo-Refractive Glass. <i>Journal of the American Ceramic Society</i> , 2011 , 94, 671-674	3.8	21
126	Effect of Bromine on NaF Crystallization in Photo-Thermo-Refractive Glass. <i>Journal of the American Ceramic Society</i> , 2011 , 94, 2906-2911	3.8	11
125	Critical Analysis of Glass Stability Parameters and Application to Lithium Borate Glasses. <i>Journal of the American Ceramic Society</i> , 2011 , 94, 3833-3841	3.8	25
124	Facile route to obtain a highly bioactive SiO ₂ -CaO-Na ₂ O-P ₂ O ₅ crystalline powder. <i>Materials Science and Engineering C</i> , 2011 , 31, 1791-1799	8.3	16

123	Assessment of antimicrobial effect of Biosilicate [®] against anaerobic, microaerophilic and facultative anaerobic microorganisms. <i>Journal of Materials Science: Materials in Medicine</i> , 2011 , 22, 1439-45	4.5	34
122	Biosilicate [®] and low-level laser therapy improve bone repair in osteoporotic rats. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2011 , 5, 229-37	4.4	43
121	In vivo biological performance of a novel highly bioactive glass-ceramic (Biosilicate [®]): A biomechanical and histomorphometric study in rat tibial defects. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2011 , 97, 139-47	3.5	49
120	Gel-derived SiO ₂ -CaO-Na ₂ O-B ₂ O ₅ bioactive powders: Synthesis and in vitro bioactivity. <i>Materials Science and Engineering C</i> , 2011 , 31, 983-991	8.3	75
119	Mechanical and tribological properties of a sintered glass-ceramic compared to granite and porcelainized stoneware. <i>Wear</i> , 2011 , 271, 875-880	3.5	11
118	Sodium Fluoride Solubility and Crystallization in Photo-Thermo-Refractive Glass. <i>Journal of the American Ceramic Society</i> , 2010 , 93, 716-721	3.8	21
117	Internal Residual Stress Measurements in a Bioactive Glass-Ceramic Using Vickers Indentation. <i>Journal of the American Ceramic Society</i> , 2010 , 93, 2359-2368	3.8	16
116	On the Determination of Nucleation Rates in Glasses by Nonisothermal Methods. <i>Journal of the American Ceramic Society</i> , 2010 , 93, 2438-2440	3.8	13
115	DSC Method for Determining the Liquidus Temperature of Glass-Forming Systems. <i>Journal of the American Ceramic Society</i> , 2010 , 93, 3757-3763	3.8	47
114	Efficacy of a bioactive glass-ceramic (Biosilicate) in the maintenance of alveolar ridges and in osseointegration of titanium implants. <i>Clinical Oral Implants Research</i> , 2010 , 21, 148-55	4.8	43
113	A novel bioactive glass-ceramic for treating dentin hypersensitivity. <i>Brazilian Oral Research</i> , 2010 , 24, 381-7	2.6	47
112	Does viscosity describe the kinetic barrier for crystal growth from the liquidus to the glass transition?. <i>Journal of Chemical Physics</i> , 2010 , 133, 174701	3.9	78
111	Critical assessment of DTA-DSC methods for the study of nucleation kinetics in glasses. <i>Journal of Non-Crystalline Solids</i> , 2010 , 356, 358-367	3.9	62
110	Thermal stability of glasses from the Fe ₄ (P ₂ O ₇) ₃ -Fe(PO ₃) ₃ system. <i>Journal of Non-Crystalline Solids</i> , 2010 , 356, 2965-2968	3.9	23
109	Glass formation from iron-rich phosphate melts. <i>Journal of Non-Crystalline Solids</i> , 2010 , 356, 1252-1257	3.9	43
108	Correlation of network structure with devitrification mechanism in lithium and sodium diborate glasses. <i>Journal of Non-Crystalline Solids</i> , 2010 , 356, 2641-2644	3.9	16
107	Stress induced pore formation and phase selection in a crystallizing stretched glass. <i>Journal of Non-Crystalline Solids</i> , 2010 , 356, 1679-1688	3.9	20
106	On the thermodynamic driving force for interpretation of nucleation experiments. <i>Journal of Non-Crystalline Solids</i> , 2010 , 356, 2185-2191	3.9	10

105	How Do Crystals Form and Grow in Glass-Forming Liquids: Ostwald's Rule of Stages and Beyond. <i>International Journal of Applied Glass Science</i> , 2010 , 1, 16-26	1.8	40
104	Effect of 830 nm laser phototherapy on osteoblasts grown in vitro on Biosilicate scaffolds. <i>Photomedicine and Laser Surgery</i> , 2010 , 28, 131-3		48
103	Effects of biosilicate and bioglass 45S5 on tibial bone consolidation on rats: a biomechanical and a histological study. <i>Journal of Materials Science: Materials in Medicine</i> , 2009 , 20, 2521-6	4.5	38
102	Analytical Model for Heterogeneous Crystallization Kinetics of Spherical Glass Particles. <i>Journal of the American Ceramic Society</i> , 2009 , 92, 2616-2618	3.8	8
101	Origin of crystallization-induced refractive index changes in photo-thermo-refractive glass. <i>Optical Materials</i> , 2009 , 32, 139-146	3.3	29
100	Method to assess the homogeneity of partially crystallized glasses: Application to a photo-thermo-refractive glass. <i>Journal of Non-Crystalline Solids</i> , 2009 , 355, 1760-1768	3.9	18
99	Structural Similarity on Multiple Length Scales and Its Relation to Devitrification Mechanism: A Solid-State NMR Study of Alkali Diborate Glasses and Crystals. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 20725-20732	3.8	17
98	Role of bromine on the thermal and optical properties of photo-thermo-refractive glass. <i>Journal of Non-Crystalline Solids</i> , 2008 , 354, 456-461	3.9	31
97	New large grain, highly crystalline, transparent glass-ceramics. <i>Journal of Non-Crystalline Solids</i> , 2008 , 354, 1721-1730	3.9	84
96	Nucleation time-lag from nucleation and growth experiments in deeply undercooled glass-forming liquids. <i>Journal of Non-Crystalline Solids</i> , 2008 , 354, 3785-3792	3.9	27
95	On the sinterability of crystallizing glass powders. <i>Journal of Non-Crystalline Solids</i> , 2008 , 354, 4589-4597	3.9	39
94	Effect of cooling on the optical properties and crystallization of UV-exposed photo-thermo-refractive glass. <i>Journal of Non-Crystalline Solids</i> , 2008 , 354, 4730-4736	3.9	15
93	Crystal growth kinetics in cordierite and diopside glasses in wide temperature ranges. <i>Journal of Non-Crystalline Solids</i> , 2008 , 354, 5386-5394	3.9	48
92	Intermediate-Range Order of Alkali Disilicate Glasses and Its Relation to the Devitrification Mechanism. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 6151-6159	3.8	21
91	Diffusion coefficients for crystal nucleation and growth in deeply undercooled glass-forming liquids. <i>Journal of Chemical Physics</i> , 2007 , 126, 234507	3.9	24
90	Mechanical Properties and Impact Resistance of a New Transparent Glass-Ceramic. <i>Advanced Engineering Materials</i> , 2007 , 9, 191-196	3.5	15
89	In vitro osteogenesis on a highly bioactive glass-ceramic (Biosilicate). <i>Journal of Biomedical Materials Research - Part A</i> , 2007 , 82, 545-57	5.4	106
88	Crystallization kinetics of $1\text{Na}_2\text{O}\cdot 2\text{CaO}\cdot 3\text{SiO}_2$ glass monitored by electrical conductivity measurements. <i>Journal of Non-Crystalline Solids</i> , 2007 , 353, 2237-2243	3.9	10

87	Surface and bulk residual stresses in Li ₂ O·2SiO ₂ glass-ceramics. <i>Journal of Non-Crystalline Solids</i> , 2007 , 353, 2307-2317	3.9	33
86	Continuous compositional changes of crystal and liquid during crystallization of a sodium calcium silicate glass. <i>Journal of Non-Crystalline Solids</i> , 2007 , 353, 2459-2468	3.9	32
85	Crystallization, texture and second-harmonic generation in TiO ₂ ·BaO·B ₂ O ₃ glasses. <i>Optical Materials</i> , 2006 , 28, 935-943	3.3	19
84	Mechanisms and dynamics of crystal growth, viscous flow, and self-diffusion in silica glass. <i>Physical Review B</i> , 2006 , 73,	3.3	36
83	Residual internal stress in partially crystallized photothermorefractive glass: Evaluation by nuclear magnetic resonance spectroscopy and first principles calculations. <i>Journal of Applied Physics</i> , 2006 , 99, 083511	2.5	20
82	Stress development and relaxation during crystal growth in glass-forming liquids. <i>Journal of Non-Crystalline Solids</i> , 2006 , 352, 434-443	3.9	40
81	Homogeneous crystal nucleation in silicate glasses: A 40 years perspective. <i>Journal of Non-Crystalline Solids</i> , 2006 , 352, 2681-2714	3.9	314
80	The scientists pyramid. <i>Scientometrics</i> , 2006 , 69, 175-181	3	7
79	Pressure dependence of viscosity. <i>Journal of Chemical Physics</i> , 2005 , 122, 074511	3.9	78
78	Correlation between maximum crystal growth rate and glass transition temperature of silicate glasses. <i>Journal of Non-Crystalline Solids</i> , 2005 , 351, 789-794	3.9	59
77	Can glass stability parameters infer glass forming ability?. <i>Journal of Non-Crystalline Solids</i> , 2005 , 351, 3296-3308	3.9	197
76	Crystallization statistics. A new tool to evaluate glass homogeneity. <i>Journal of Non-Crystalline Solids</i> , 2005 , 351, 3579-3586	3.9	12
75	Nucleation and Crystallization Kinetics in Silicate Glasses: Theory and Experiment 2005 , 74-125		17
74	New insights on the thermodynamic barrier for nucleation in glasses: The case of lithium disilicate. <i>Journal of Non-Crystalline Solids</i> , 2005 , 351, 1491-1499	3.9	31
73	Model for Sintering Devitrifying Glass Particles with Embedded Rigid Fibers. <i>Journal of the American Ceramic Society</i> , 2005 , 88, 1427-1434	3.8	18
72	Kinetics and mechanisms of crystal growth and diffusion in a glass-forming liquid. <i>Journal of Chemical Physics</i> , 2004 , 121, 8924-8	3.9	55
71	Nanocrystallization of fresnoite glass. II. Analysis of homogeneous nucleation kinetics. <i>Journal of Non-Crystalline Solids</i> , 2004 , 343, 85-90	3.9	32
70	How many non-crystalline solids can be made from all the elements of the periodic table?. <i>Journal of Non-Crystalline Solids</i> , 2004 , 347, 285-288	3.9	37

69	Recent studies of internal and surface nucleation in silicate glasses. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2003 , 361, 591-613	3	74
68	Cristalizaço e taxa crtica de resfriamento para vitrificaço do poli(sebacato de decametileno). <i>Quimica Nova</i> , 2003 , 26, 202	1.6	4
67	Impedance spectroscopy of a soda-lime glass during sintering. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2003 , 352, 232-239	5.3	10
66	Primary Crystal Nucleation and Growth Regime Transition in Isotactic Polypropylene. <i>Journal of Macromolecular Science - Physics</i> , 2003 , 42, 387-401	1.4	7
65	Nanocrystallization of fresnoite glass. I. Nucleation and growth kinetics. <i>Journal of Non-Crystalline Solids</i> , 2003 , 330, 174-186	3.9	95
64	Mutant crystals in Na ₂ O·2CaO·3SiO ₂ glasses. <i>Journal of Non-Crystalline Solids</i> , 2003 , 331, 240-253	3.9	54
63	TEM and XRD study of early crystallization of lithium disilicate glasses. <i>Journal of Non-Crystalline Solids</i> , 2003 , 331, 217-227	3.9	119
62	Isothermal sintering with concurrent crystallization of polydispersed soda-lime-silica glass beads. <i>Journal of Non-Crystalline Solids</i> , 2003 , 331, 145-156	3.9	37
61	Non-isothermal sintering with concurrent crystallization of polydispersed soda-lime-silica glass beads. <i>Journal of Non-Crystalline Solids</i> , 2003 , 331, 157-167	3.9	30
60	Liquid-liquid phase separation in alkali-borosilicate glass.. <i>Journal of Non-Crystalline Solids</i> , 2003 , 332, 166-172	3.9	11
59	Homogeneous nucleation versus glass transition temperature of silicate glasses. <i>Journal of Non-Crystalline Solids</i> , 2003 , 321, 52-65	3.9	72
58	Qn distribution in stoichiometric silicate glasses: thermodynamic calculations and ²⁹ Si high resolution NMR measurements. <i>Journal of Non-Crystalline Solids</i> , 2003 , 325, 164-178	3.9	82
57	Glass-forming ability versus stability of silicate glasses. I. Experimental test. <i>Journal of Non-Crystalline Solids</i> , 2003 , 320, 1-8	3.9	80
56	Glass-forming ability versus stability of silicate glasses. II. Theoretical demonstration. <i>Journal of Non-Crystalline Solids</i> , 2003 , 320, 9-20	3.9	72
55	Sintering polydispersed spherical glass particles. <i>Journal of Materials Research</i> , 2003 , 18, 1347-1354	2.5	20
54	Glass sintering with concurrent crystallization. <i>Comptes Rendus Chimie</i> , 2002 , 5, 773-786	2.7	78
53	Scientific and technological development in Brazil. The widening gap. <i>Scientometrics</i> , 2002 , 55, 411-419	3	7
52	Nano vitrocermica de escria de aciaria. <i>Quimica Nova</i> , 2002 , 25, 731-735	1.6	2

51	Model for sintering polydispersed glass particles. <i>Journal of Non-Crystalline Solids</i> , 2001 , 279, 169-178	3.9	75
50	Highly bioactive P ₂ O ₅ -Na ₂ O-CaO-Bi ₂ O ₃ glass-ceramics. <i>Journal of Non-Crystalline Solids</i> , 2001 , 292, 115-126	3.9	405
49	Surface nucleation and growth in Anorthite glass. <i>Journal of Non-Crystalline Solids</i> , 2000 , 271, 94-99	3.9	23
48	²⁹ Si MAS-NMR studies of Q _n structural units in metasilicate glasses and their nucleating ability. <i>Journal of Non-Crystalline Solids</i> , 2000 , 273, 8-18	3.9	89
47	Crystallization mechanism and properties of a blast furnace slag glass. <i>Journal of Non-Crystalline Solids</i> , 2000 , 273, 64-75	3.9	133
46	Surface crystallization and texture in cordierite glasses. <i>Journal of Non-Crystalline Solids</i> , 2000 , 273, 81-93	3.9	53
45	On the persistence of metastable crystal phases in lithium disilicate glass. <i>Journal of Non-Crystalline Solids</i> , 2000 , 274, 188-194	3.9	44
44	Surface crystallization of silicate glasses: nucleation sites and kinetics. <i>Journal of Non-Crystalline Solids</i> , 2000 , 274, 208-231	3.9	195
43	Method to estimate crystal/liquid surface energy by dissolution of subcritical nuclei. <i>Journal of Non-Crystalline Solids</i> , 2000 , 278, 24-34	3.9	34
42	Relationship between short-range order and ease of nucleation in Na ₂ Ca ₂ Si ₃ O ₉ , CaSiO ₃ and PbSiO ₃ glasses. <i>Journal of Non-Crystalline Solids</i> , 2000 , 262, 191-199	3.9	75
41	Crystal nucleation in silicate glasses: the temperature and size dependence of crystal/liquid surface energy. <i>Journal of Non-Crystalline Solids</i> , 2000 , 265, 105-112	3.9	84
40	Do cathedral glasses flow? Additional remarks. <i>American Journal of Physics</i> , 1999 , 67, 260-262	0.7	45
39	Surface and volume nucleation and growth in TiO ₂ -cordierite glasses. <i>Journal of Non-Crystalline Solids</i> , 1999 , 246, 115-127	3.9	41
38	Thermal shock properties of chemically toughened borosilicate glass. <i>Journal of Non-Crystalline Solids</i> , 1999 , 247, 39-49	3.9	21
37	Anisotropic residual stresses in partially crystallized Li ₂ O-SiO ₂ glass-ceramics. <i>Journal of Non-Crystalline Solids</i> , 1999 , 247, 79-86	3.9	41
36	XRD investigation of metastable phase formation in Li ₂ O-SiO ₂ glass. <i>Journal of Non-Crystalline Solids</i> , 1999 , 255, 264-268	3.9	24
35	The effect of pre-existing crystals on the crystallization kinetics of a soda-lime-silica glass. The courtyard phenomenon. <i>Journal of Non-Crystalline Solids</i> , 1999 , 258, 180-186	3.9	25
34	Viscous Flow of Glasses Forming Liquids: Experimental Techniques for the High Viscosity Range 1999 , 138-150		1

33	Oxygen self-diffusion in a cordierite glass. <i>Journal of Non-Crystalline Solids</i> , 1998 , 242, 177-182	3.9	5
32	Do cathedral glasses flow?. <i>American Journal of Physics</i> , 1998 , 66, 392-395	0.7	65
31	Theoretical assessment of systematic errors in volume fraction determinations by microscopy methods. <i>Journal of Materials Research</i> , 1998 , 13, 2045-2047	2.5	5
30	Metastable phases in lithium disilicate glasses. <i>Journal of Non-Crystalline Solids</i> , 1997 , 219, 42-48	3.9	62
29	A test of the Hrubý parameter to estimate glass-forming ability. <i>Journal of Non-Crystalline Solids</i> , 1997 , 219, 182-186	3.9	63
28	Residual stresses in a soda-lime-silica glass-ceramic. <i>Journal of Non-Crystalline Solids</i> , 1996 , 194, 297-304	3.9	46
27	The nucleation mechanism of lithium disilicate glass revisited. <i>Journal of Non-Crystalline Solids</i> , 1996 , 202, 145-152	3.9	51
26	The applicability of the general theory of phase transformations to glass crystallization. <i>Thermochimica Acta</i> , 1996 , 280-281, 73-82	2.9	20
25	Polymer crystallization: Fold surface free energy determination by different thermal analysis techniques. <i>Thermochimica Acta</i> , 1995 , 269-270, 191-199	2.9	17
24	Molecular structure and nucleation in silicate glasses. <i>Journal of Non-Crystalline Solids</i> , 1993 , 155, 56-66	3.9	37
23	Influence of cation coordination on nucleation in silicate glasses. <i>Zeitschrift Fur Kristallographie - Crystalline Materials</i> , 1992 , 200, 287-294	1	
22	The formation of unusual glasses by sol-gel processing. <i>Journal of Non-Crystalline Solids</i> , 1992 , 147-148, 820-823	3.9	17
21	Surface crystallization kinetics in soda-lime-silica glasses. <i>Journal of Non-Crystalline Solids</i> , 1991 , 129, 183-190	3.9	83
20	Surface nucleation in a diopside glass. <i>Journal of Non-Crystalline Solids</i> , 1991 , 130, 217-219	3.9	24
19	A simple method to predict the nucleation mechanism in glass. <i>Journal of Non-Crystalline Solids</i> , 1991 , 130, 220-221	3.9	63
18	Adiabatic nucleation and crystallization of gels. <i>Journal of Non-Crystalline Solids</i> , 1990 , 121, 279-281	3.9	6
17	Critical cooling rate calculations for glass formation. <i>Journal of Non-Crystalline Solids</i> , 1990 , 123, 90-96	3.9	38
16	A theoretical and experimental assessment of systematic errors in nucleation experiments. <i>Journal of Non-Crystalline Solids</i> , 1990 , 124, 86-90	3.9	16

15	Use Method of Calculating Critical Cooling Rates for Glass Formation. <i>Journal of the American Ceramic Society</i> , 1989 , 72, 2054-2058	3.8	42
14	Re-examination of the temperature dependence of the classical nucleation rate: Homogeneous crystal nucleation in glass. <i>Journal of Non-Crystalline Solids</i> , 1989 , 108, 99-108	3.9	57
13	Saturation effects in homogeneous and heterogeneous crystal nucleation. <i>Journal of Non-Crystalline Solids</i> , 1988 , 105, 53-62	3.9	13
12	Experimental test of the general theory of transformation kinetics: Homogeneous nucleation in a BaO + 2SiO ₂ glass. <i>Journal of Non-Crystalline Solids</i> , 1988 , 104, 70-72	3.9	26
11	Experimental test of the general theory of transformation kinetics: Homogeneous nucleation in a Na ₂ O + 2CaO + 3SiO ₂ glass. <i>Journal of Non-Crystalline Solids</i> , 1988 , 104, 73-80	3.9	44
10	Isothermal and adiabatic nucleation in glass. <i>Journal of Non-Crystalline Solids</i> , 1987 , 89, 361-370	3.9	118
9	The effects of amorphous phase separation on crystal nucleation kinetics in BaO-SiO ₂ glasses. <i>Journal of Materials Science</i> , 1986 , 21, 3050-3064	4.3	32
8	Experimental tests of the classical nucleation theory for glasses. <i>Journal of Non-Crystalline Solids</i> , 1985 , 74, 373-394	3.9	163
7	Small angle X-ray scattering study of phase separation in glasses using a new position sensitive detector. <i>Nuclear Instruments & Methods in Physics Research</i> , 1983 , 208, 489-494		11
6	Positron Annihilation in Phase-Separated BaO-SiO ₂ Glasses. <i>Journal of the American Ceramic Society</i> , 1983 , 66, C-37-C-38	3.8	1
5	Kinetics of sub-liquidus phase separation in silicate and borate glasses. A review. <i>Bulletin De Mineralogie</i> , 1983 , 106, 169-184		19
4	The role of amorphous phase separation in crystal nucleation in splat cooled Li ₂ O-SiO ₂ glasses. <i>Journal of Materials Science</i> , 1981 , 16, 973-982	4.3	15
3	Chapter 2: Bioactive Glass-ceramics: Processing, Properties and Applications. <i>RSC Smart Materials</i> , 27-60	0.6	5
2	Structure and mechanical properties of pyrope (Mg ₃ Al ₂ Si ₃ O ₁₂) glass: Effect of high pressure. <i>International Journal of Applied Glass Science</i> ,	1.8	1
1	Sintering Kinetics of Crystallizing Glass Particles. A Review. <i>Ceramic Transactions</i> , 163-179	0.1	1