

Minoru Tomozawa

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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.

91
papers

2,432
citations

28
h-index

45
g-index

97
ext. papers

2,580
ext. citations

4
avg, IF

4.76
L-index

#	Paper	IF	Citations
91	A simple IR spectroscopic method for determining fictive temperature of silica glasses. <i>Journal of Non-Crystalline Solids</i> , 1995 , 185, 191-198	3.9	218
90	Microhardness of SiO ₂ Glass in Various Environments. <i>Journal of the American Ceramic Society</i> , 1987 , 70, 497-502	3.8	127
89	Correlation of silica glass properties with the infrared spectra. <i>Journal of Non-Crystalline Solids</i> , 1997 , 209, 166-174	3.9	125
88	Diffusion of Water into Silica Glass at Low Temperature. <i>Journal of the American Ceramic Society</i> , 1989 , 72, 1850-1855	3.8	115
87	Effect of Stress on Water Diffusion in Silica Glass. <i>Journal of the American Ceramic Society</i> , 1984 , 67, 151-184	3.84	110
86	Surface and bulk structural relaxation kinetics of silica glass. <i>Journal of Non-Crystalline Solids</i> , 1997 , 209, 264-272	3.9	70
85	Water in glass. <i>Journal of Non-Crystalline Solids</i> , 1985 , 73, 197-204	3.9	69
84	Preparation of BaTiO ₃ /low melting glass core-shell nanoparticles for energy storage capacitor applications. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 18087-18096	13	66
83	Phase separation in rare-earth-doped SiO ₂ glasses. <i>Journal of Non-Crystalline Solids</i> , 1993 , 159, 246-252	3.9	56
82	Water diffusion and surface structural relaxation of silica glasses. <i>Journal of Non-Crystalline Solids</i> , 2001 , 288, 73-80	3.9	50
81	Preparation of high purity, low water content fused silica glass. <i>Journal of Non-Crystalline Solids</i> , 2001 , 296, 102-106	3.9	48
80	Kinetics of Crack Tip Blunting of Glasses. <i>Journal of the American Ceramic Society</i> , 1987 , 70, 43-48	3.8	48
79	Dynamic Fatigue of Treated High-Silica Glass: Explanation by Crack Tip Blunting. <i>Journal of the American Ceramic Society</i> , 1987 , 70, 377-382	3.8	46
78	Water Entry into Silica Glass During Slow Crack Growth. <i>Journal of the American Ceramic Society</i> , 1991 , 74, 2573-2576	3.8	45
77	Water diffusion into silica glass at a low temperature under high water vapor pressure. <i>Journal of Non-Crystalline Solids</i> , 2004 , 347, 211-219	3.9	40
76	Surface structural relaxation of silica glass: a possible mechanism of mechanical fatigue. <i>Journal of Non-Crystalline Solids</i> , 2004 , 345-346, 449-460	3.9	40
75	Indentation Creep of Na ₂ O · 3SiO ₂ Glasses with Various Water Contents. <i>Journal of the American Ceramic Society</i> , 1990 , 73, 3626-3632	3.8	40

74	Effect of Fictive Temperature on Dynamic Fatigue Behavior of Silica and Soda-Lime Glasses. <i>Journal of the American Ceramic Society</i> , 1995 , 78, 1393-1396	3.8	36
73	Concentration Dependence of the Diffusion Coefficient of Water in SiO ₂ Glass. <i>Journal of the American Ceramic Society</i> , 1985 , 68, C-251-C-252	3.8	35
72	Birefringence and Microstructure of Anisotropic Borosilicate Glasses. <i>Journal of the American Ceramic Society</i> , 1976 , 59, 377-379	3.8	35
71	Thermal properties of Na ₂ OBSiO ₂ glasses with high water content. <i>Journal of Non-Crystalline Solids</i> , 1983 , 56, 343-348	3.9	34
70	Charge carrier concentration and mobility of ions in a silica glass. <i>Journal of Non-Crystalline Solids</i> , 1998 , 241, 140-148	3.9	33
69	Effect of uniaxial stresses on silica glass structure investigated by IR spectroscopy. <i>Journal of Non-Crystalline Solids</i> , 1998 , 242, 104-109	3.9	32
68	Determination of Fictive Temperature of Soda-Lime Silicate Glass. <i>Journal of the American Ceramic Society</i> , 1995 , 78, 827-829	3.8	32
67	Microstructure in Hydrated Silicate Glasses. <i>Journal of the American Ceramic Society</i> , 1983 , 66, C-24-C-25	3.8	32
66	Electrode Polarization of Glasses. <i>Journal of the American Ceramic Society</i> , 1976 , 59, 127-130	3.8	31
65	Correspondence of phase separation in several charged particle systems. <i>Journal of Chemical Physics</i> , 1992 , 97, 2609-2617	3.9	30
64	Effect of stress on water diffusion in silica glass at various temperatures. <i>Journal of Non-Crystalline Solids</i> , 1994 , 167, 139-148	3.9	29
63	Time dependent diffusion coefficient of water into silica glass at low temperatures. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1999 , 272, 114-119	5.3	26
62	Effect of Minor Third Components on Metastable Immiscibility Boundaries of Binary Glasses. <i>Journal of the American Ceramic Society</i> , 1973 , 56, 378-381	3.8	26
61	Radial distribution of fictive temperatures in silica optical fibers. <i>Journal of Non-Crystalline Solids</i> , 1997 , 217, 272-277	3.9	25
60	HCl Leaching Rate and Microstructure of Phase-Separated Borosilicate Glasses. <i>Journal of the American Ceramic Society</i> , 1978 , 61, 509-512	3.8	25
59	Dielectric Relaxation Strength of a Low-Alkali Glass. <i>Journal of the American Ceramic Society</i> , 1981 , 64, 713-717	3.8	24
58	Effect of Phase Separation on HF Etch Rate of Borosilicate Glasses. <i>Journal of the American Ceramic Society</i> , 1977 , 60, 301-304	3.8	24
57	Detection of Phase Separation by FTIR in a Liquid-Crystal-Display Substrate Aluminoborosilicate Glass. <i>Journal of the American Ceramic Society</i> , 2004 , 84, 2111-2116	3.8	22

56	Mechanical strength increase of abraded silica glass by high pressure water vapor treatment. <i>Journal of Non-Crystalline Solids</i> , 1994 , 168, 287-292	3.9	21
55	An Overview of the Strengthening of Glass Fibers by Surface Stress Relaxation. <i>International Journal of Applied Glass Science</i> , 2015 , 6, 34-44	1.8	20
54	Effect of residual water in silica glass on static fatigue. <i>Journal of Non-Crystalline Solids</i> , 1991 , 127, 97-104	3.9	20
53	Ion-Exchanged Lithium Aluminosilicate Glass: Strength and Dynamic Fatigue. <i>Journal of the American Ceramic Society</i> , 2016 , 99, 2645-2654	3.8	19
52	Equilibrium oxygen vacancy concentrations and oxidant diffusion in germania, silica, and germania-silica glasses. <i>Journal of Non-Crystalline Solids</i> , 1996 , 202, 93-106	3.9	19
51	Viscosity and Microstructure of Phase-Separated Borosilicate Glasses. <i>Journal of the American Ceramic Society</i> , 1979 , 62, 373-377	3.8	18
50	Dielectric Characteristics of Glass. <i>Treatise on Materials Science and Technology</i> , 1977 , 12, 283-345		18
49	IR reflection spectroscopy of a soda-lime glass surface during ion-exchange. <i>Journal of Non-Crystalline Solids</i> , 1997 , 222, 125-130	3.9	17
48	Sub-critical crack growth rate of soda-lime-silicate glass and less brittle glass as a function of fictive temperature. <i>Journal of Non-Crystalline Solids</i> , 2007 , 353, 2675-2680	3.9	17
47	Mechanism of Mechanical Strength Increase of Soda-Lime Glass by Aging. <i>Journal of the American Ceramic Society</i> , 1989 , 72, 1837-1843	3.8	17
46	Nernst-Einstein Relation in Sodium Silicate Glass. <i>Journal of the American Ceramic Society</i> , 1975 , 58, 183-185	3.8	17
45	Modeling Slow Crack Growth Behavior of Glass Strengthened by a Subcritical Tensile Stress Using Surface Stress Relaxation. <i>Journal of the American Ceramic Society</i> , 2015 , 98, 3075-3086	3.8	16
44	Effect of fictive temperature on mechanical strength of soda-lime glasses. <i>Journal of Non-Crystalline Solids</i> , 1998 , 241, 134-139	3.9	16
43	Effects of water in simulated borosilicate-based nuclear waste glasses on their properties. <i>Journal of Non-Crystalline Solids</i> , 1996 , 195, 188-198	3.9	16
42	Effects of fictive temperature and water content on electrical conductivity of silica glasses. <i>Journal of Non-Crystalline Solids</i> , 1996 , 203, 262-267	3.9	16
41	Electrical and dielectric relaxation in silica glasses at low temperature. <i>Journal of Non-Crystalline Solids</i> , 1997 , 211, 237-249	3.9	15
40	Dielectric Characteristics of Na ₂ O-3SiO ₂ Glasses with High Water Contents. <i>Journal of the American Ceramic Society</i> , 1984 , 67, 106-109	3.8	15
39	Tensile stress-acceleration of the surface structural relaxation of SiO ₂ optical fibers. <i>Journal of Non-Crystalline Solids</i> , 1997 , 222, 376-382	3.9	13

38	Crystallization of lithium metasilicate from lithium disilicate glass. <i>Journal of Non-Crystalline Solids</i> , 1995 , 190, 233-237	3.9	13
37	Mechanical fatigue of silica glass. <i>Journal of Non-Crystalline Solids</i> , 1987 , 95-96, 149-160	3.9	13
36	Sodium Transport in the Na ₂ O-H ₂ O-SiO ₂ Glass System. <i>Journal of the American Ceramic Society</i> , 1985 , 68, 165-168	3.8	13
35	Relation of Surface Structure of Glass to HF Acid Attack and Stress State. <i>Journal of the American Ceramic Society</i> , 1979 , 62, 370-373	3.8	13
34	Origin of the Static Fatigue Limit in Oxide Glasses. <i>Journal of the American Ceramic Society</i> , 2016 , 99, 3600-3609	3.8	12
33	Effect of crystallizable glass addition on sintering and dielectric behaviors of barium titanate ceramics. <i>Journal of Materials Science: Materials in Electronics</i> , 2013 , 24, 2135-2140	2.1	12
32	Surface Crystallization and Water Diffusion of Silica Glass Fibers: Causes of Mechanical Strength Degradation. <i>Journal of the American Ceramic Society</i> , 2015 , 98, 2411-2421	3.8	12
31	Electrical resistivity of silica glasses. <i>Journal of Non-Crystalline Solids</i> , 1993 , 163, 203-210	3.9	11
30	Crack initiation and mechanical fatigue of silica glass. <i>Journal of Non-Crystalline Solids</i> , 1990 , 122, 90-100	3.9	11
29	Effect of Fluorine on the Phase Separation of Na ₂ O-SiO ₂ Glasses. <i>Journal of the American Ceramic Society</i> , 1981 , 64, C-20-C-20	3.8	11
28	Glass-Metal Reaction in AC Electric Field. <i>Journal of the American Ceramic Society</i> , 1976 , 59, 321-324	3.8	11
27	Stochasticity in materials structure, properties, and processing-A review. <i>Applied Physics Reviews</i> , 2018 , 5,	17.3	10
26	Light Scattering from Phase-Separated Glass. <i>Journal of the American Ceramic Society</i> , 1974 , 57, 467-470	3.8	10
25	Water Diffusion in Silica Glass and Wet Oxidation of Si: An Interpretation for the High Speed of Wet Oxidation. <i>Journal of the Electrochemical Society</i> , 2011 , 158, G115	3.9	9
24	A Source of the Immiscibility Controversy of Borate and Borosilicate Glass Systems. <i>Journal of the American Ceramic Society</i> , 2004 , 82, 206-208	3.8	9
23	Water concentration profile in silica glasses during surface crystallization. <i>Journal of Non-Crystalline Solids</i> , 2001 , 279, 179-185	3.9	9
22	The origin of anomalous water diffusion in silica glasses at low temperatures. <i>Journal of the American Ceramic Society</i> , 2017 , 100, 4548-4561	3.8	8
21	Basic Science in Silica Glass Polishing. <i>Materials Research Society Symposia Proceedings</i> , 1994 , 337, 89		8

20	Glass transition temperature of Na ₂ O ₃ SiO ₂ glasses with high water content.. <i>Journal of the Ceramic Association Japan</i> , 1983 , 91, 377-383		8
19	Scattering Study of Microstructurally Birefringent Glasses. <i>Journal of the American Ceramic Society</i> , 1980 , 63, 276-280	3.8	8
18	Immiscibility of glass forming systems. <i>Journal of Non-Crystalline Solids</i> , 1986 , 84, 142-150	3.9	7
17	Anomalous Birefringence in Oxide Glasses. <i>Treatise on Materials Science and Technology</i> , 1977 , 12, 123-155		7
16	Compositional Changes as Evidence for Spinodal Decomposition in Glass. <i>Journal of the American Ceramic Society</i> , 1978 , 61, 444-447	3.8	7
15	Direct Observation of Crack Tip Geometry of SiO ₂ Glass by High-Resolution Electron Microscopy. <i>Journal of the American Ceramic Society</i> , 2006 , 67, C-36-C-37	3.8	6
14	Surface shear stress relaxation of silica glass. <i>Journal of the American Ceramic Society</i> , 2019 , 102, 4573-4582	3.8	5
13	Dielectric Loss of Microstructurally Anisotropic Borosilicate Glass. <i>Journal of the American Ceramic Society</i> , 1981 , 64, 275-278	3.8	5
12	Anisotropy of Second-Phase Distribution in Phase-Separated and Stretched Glasses. <i>Journal of the American Ceramic Society</i> , 1982 , 65, 9-11	3.8	5
11	Origin of Viscosity Increase of Phase-Separated Borosilicate Glasses. <i>Journal of the American Ceramic Society</i> , 1992 , 75, 3103-3110	3.8	4
10	Effect of ammonia on static fatigue of silica glass. <i>Journal of Non-Crystalline Solids</i> , 1988 , 102, 95-99	3.9	4
9	Hydrogen formation observed during high pressure treatment of silica glass. <i>Journal of Non-Crystalline Solids</i> , 2011 , 357, 2081-2085	3.9	3
8	The effect of water on phase separation of sodium silicate glasses. <i>Journal of Non-Crystalline Solids</i> , 1994 , 167, 127-138	3.9	2
7	Modeling birefringence in SiO ₂ glass fiber using surface stress relaxation. <i>Journal of the American Ceramic Society</i> , 2020 , 103, 1666-1676	3.8	2
6	Method to Estimate Thermal Shrinkage Behavior of Glasses. <i>International Journal of Applied Glass Science</i> , 2011 , 2, 192-200	1.8	1
5	The Surface Damage in SiO ₂ Caused by Chemical Mechanical Polishing on Ic-60 Pads. <i>Materials Research Society Symposia Proceedings</i> , 1994 , 337, 157		1
4	Morphology of Creep Fracture of a Phase-Separated Borosilicate Glass. <i>Journal of the American Ceramic Society</i> , 1980 , 63, 126-128	3.8	1
3	Swelling of Microporous High-Silica Glasses. <i>Journal of the American Ceramic Society</i> , 1982 , 65, c127-c128	3.8	1

- 2 Photoelastic confirmation of surface stress relaxation in silica glasses: Fiber bending and rod torsion. *Journal of the American Ceramic Society*, **2021**, 104, 3087-3096 3.8 ○
- 1 Induced anisotropy in oxide glasses **1994**, 955-972