

Morten Matstrup Smedskjr

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ext. citations

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#	Paper	IF	Citations
193	Topological principles of borosilicate glass chemistry. <i>Journal of Physical Chemistry B</i> , 2011 , 115, 12930-464	5.4	234
192	Prediction of glass hardness using temperature-dependent constraint theory. <i>Physical Review Letters</i> , 2010 , 105, 115503	7.4	195
191	Quantitative Design of Glassy Materials Using Temperature-Dependent Constraint Theory. <i>Chemistry of Materials</i> , 2010 , 22, 5358-5365	9.6	139
190	Accelerating the Design of Functional Glasses through Modeling. <i>Chemistry of Materials</i> , 2016 , 28, 4267-4277	9.7	136
189	Structure and properties of sodium aluminosilicate glasses from molecular dynamics simulations. <i>Journal of Chemical Physics</i> , 2013 , 139, 044507	3.9	96
188	Cooling rate effects in sodium silicate glasses: Bridging the gap between molecular dynamics simulations and experiments. <i>Journal of Chemical Physics</i> , 2017 , 147, 074501	3.9	83
187	Discovery of Ultra-Crack-Resistant Oxide Glasses with Adaptive Networks. <i>Chemistry of Materials</i> , 2017 , 29, 5865-5876	9.6	77
186	A new transferable interatomic potential for molecular dynamics simulations of borosilicate glasses. <i>Journal of Non-Crystalline Solids</i> , 2018 , 498, 294-304	3.9	76
185	Composition-structure-property relationships in boroaluminosilicate glasses. <i>Journal of Non-Crystalline Solids</i> , 2012 , 358, 993-1002	3.9	76
184	Statistical mechanics of glass. <i>Journal of Non-Crystalline Solids</i> , 2014 , 396-397, 41-53	3.9	72
183	Structure and mechanical properties of compressed sodium aluminosilicate glasses: Role of non-bridging oxygens. <i>Journal of Non-Crystalline Solids</i> , 2016 , 441, 49-57	3.9	71
182	Predicting the dissolution kinetics of silicate glasses using machine learning. <i>Journal of Non-Crystalline Solids</i> , 2018 , 487, 37-45	3.9	63
181	Fracture toughness anomalies: Viewpoint of topological constraint theory. <i>Acta Materialia</i> , 2016 , 121, 234-239	8.4	62
180	Mixed alkaline earth effect in sodium aluminosilicate glasses. <i>Journal of Non-Crystalline Solids</i> , 2013 , 369, 61-68	3.9	62
179	Structural origin of high crack resistance in sodium aluminoborate glasses. <i>Journal of Non-Crystalline Solids</i> , 2017 , 460, 54-65	3.9	53
178	Structure of boroaluminosilicate glasses: Impact of [Al ₂ O ₃]/[SiO ₂] ratio on the structural role of sodium. <i>Physical Review B</i> , 2012 , 86,	3.3	51
177	Elastic and micromechanical properties of isostatically compressed soda-lime-borate glasses. <i>Journal of Non-Crystalline Solids</i> , 2013 , 364, 44-52	3.9	50

176	Predicting the Young's Modulus of Silicate Glasses using High-Throughput Molecular Dynamics Simulations and Machine Learning. <i>Scientific Reports</i> , 2019 , 9, 8739	4.9	49
175	Irreversibility of pressure induced boron speciation change in glass. <i>Scientific Reports</i> , 2014 , 4, 3770	4.9	46
174	Pressure-Induced Densification of Oxide Glasses at the Glass Transition. <i>Frontiers in Materials</i> , 2017 , 4,	4	45
173	Unique effects of thermal and pressure histories on glass hardness: Structural and topological origin. <i>Journal of Chemical Physics</i> , 2015 , 143, 164505	3.9	43
172	Sodium diffusion in boroaluminosilicate glasses. <i>Journal of Non-Crystalline Solids</i> , 2011 , 357, 3744-3750	3.9	43
171	Indentation deformation mechanism of isostatically compressed mixed alkali aluminosilicate glasses. <i>Journal of Non-Crystalline Solids</i> , 2015 , 426, 175-183	3.9	42
170	Mixed alkaline earth effect in the compressibility of aluminosilicate glasses. <i>Journal of Chemical Physics</i> , 2014 , 140, 054511	3.9	42
169	Topological Model for the Viscosity of Multicomponent Glass-Forming Liquids. <i>International Journal of Applied Glass Science</i> , 2013 , 4, 408-413	1.8	42
168	Correlating the Network Topology of Oxide Glasses with their Chemical Durability. <i>Journal of Physical Chemistry B</i> , 2017 , 121, 1139-1147	3.4	41
167	Thermometer Effect: Origin of the Mixed Alkali Effect in Glass Relaxation. <i>Physical Review Letters</i> , 2017 , 119, 095501	7.4	41
166	Hardness and incipient plasticity in silicate glasses: Origin of the mixed modifier effect. <i>Applied Physics Letters</i> , 2014 , 104, 051913	3.4	41
165	Effect of thermal history and chemical composition on hardness of silicate glasses. <i>Journal of Non-Crystalline Solids</i> , 2010 , 356, 893-897	3.9	40
164	Near-infrared emission from Eu ³⁺ doped silicate glasses subjected to thermal reduction. <i>Applied Physics Letters</i> , 2011 , 98, 071911	3.4	39
163	Composition-Structure-Property Relations of Compressed Borosilicate Glasses. <i>Physical Review Applied</i> , 2014 , 2,	4.3	38
162	Unified physics of stretched exponential relaxation and Weibull fracture statistics. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2012 , 391, 6121-6127	3.3	38
161	Impact of network topology on cationic diffusion and hardness of borate glass surfaces. <i>Journal of Chemical Physics</i> , 2010 , 133, 154509	3.9	37
160	Topological Model for Boroaluminosilicate Glass Hardness. <i>Frontiers in Materials</i> , 2014 , 1,	4	36
159	Ionic diffusion and the topological origin of fragility in silicate glasses. <i>Journal of Chemical Physics</i> , 2009 , 131, 244514	3.9	36

158	Structure-topology-property correlations of sodium phosphosilicate glasses. <i>Journal of Chemical Physics</i> , 2015 , 143, 064510	3.9	35
157	Indentation deformation in oxide glasses: Quantification, structural changes, and relation to cracking. <i>Journal of Non-Crystalline Solids: X</i> , 2019 , 1, 100007	2.5	34
156	Predicting the dissolution kinetics of silicate glasses by topology-informed machine learning. <i>Npj Materials Degradation</i> , 2019 , 3,	5.7	32
155	Principles of Pyrex® glass chemistry: structure-property relationships. <i>Applied Physics A: Materials Science and Processing</i> , 2014 , 116, 491-504	2.6	32
154	Effect of Na ₂ CO ₃ as foaming agent on dynamics and structure of foam glass melts. <i>Journal of Non-Crystalline Solids</i> , 2014 , 400, 1-5	3.9	32
153	Fracture toughness of a metal-organic framework glass. <i>Nature Communications</i> , 2020 , 11, 2593	17.4	31
152	Microscopic Origins of Compositional Trends in Aluminosilicate Glass Properties. <i>Journal of the American Ceramic Society</i> , 2013 , 96, 1436-1443	3.8	29
151	On the origin of the mixed alkali effect on indentation in silicate glasses. <i>Journal of Non-Crystalline Solids</i> , 2014 , 406, 22-26	3.9	28
150	Influence of aluminum speciation on the stability of aluminosilicate glasses against crystallization. <i>Applied Physics Letters</i> , 2012 , 101, 041906	3.4	28
149	Elastic interpretation of the glass transition in aluminosilicate liquids. <i>Physical Review B</i> , 2012 , 85,	3.3	27
148	The hydrophilic-to-hydrophobic transition in glassy silica is driven by the atomic topology of its surface. <i>Journal of Chemical Physics</i> , 2018 , 148, 074503	3.9	26
147	Universal Preparation of Novel Metal and Semiconductor Nanoparticle-Glass Composites with Excellent Nonlinear Optical Properties. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 24598-24604	3.8	26
146	Inward Cationic Diffusion and Formation of Silica-Rich Surface Nanolayer of Glass. <i>Chemistry of Materials</i> , 2009 , 21, 1242-1247	9.6	26
145	Ion exchange strengthening and thermal expansion of glasses: Common origin and critical role of network connectivity. <i>Journal of Non-Crystalline Solids</i> , 2017 , 455, 70-74	3.9	25
144	Hardness of silicate glasses: Atomic-scale origin of the mixed modifier effect. <i>Journal of Non-Crystalline Solids</i> , 2018 , 489, 16-21	3.9	25
143	Structure of MgO/CaO sodium aluminosilicate glasses: Raman spectroscopy study. <i>Journal of Non-Crystalline Solids</i> , 2017 , 470, 145-151	3.9	24
142	Breaking the Limit of Micro-Ductility in Oxide Glasses. <i>Advanced Science</i> , 2019 , 6, 1901281	13.6	24
141	Dissolution Kinetics of Hot Compressed Oxide Glasses. <i>Journal of Physical Chemistry B</i> , 2017 , 121, 9063-9072	3.7	24

140	Inward cationic diffusion in glass. <i>Journal of Non-Crystalline Solids</i> , 2009 , 355, 908-912	3.9	24
139	Prediction of the Young's modulus of silicate glasses by topological constraint theory. <i>Journal of Non-Crystalline Solids</i> , 2019 , 514, 15-19	3.9	23
138	Impact of ZnO on the structure and properties of sodium aluminosilicate glasses: Comparison with alkaline earth oxides. <i>Journal of Non-Crystalline Solids</i> , 2013 , 381, 58-64	3.9	23
137	Hardness of oxynitride glasses: topological origin. <i>Journal of Physical Chemistry B</i> , 2015 , 119, 4109-15	3.4	22
136	Temperature-dependent densification of sodium borosilicate glass. <i>RSC Advances</i> , 2015 , 5, 78845-78851	3.7	22
135	Tunable photoluminescence induced by thermal reduction in rare earth doped glasses. <i>Journal of Materials Chemistry</i> , 2011 , 21, 6614		22
134	Crystallisation behaviour and high-temperature stability of stone wool fibres. <i>Journal of the European Ceramic Society</i> , 2010 , 30, 1287-1295	6	22
133	Modifier field strength effects on densification behavior and mechanical properties of alkali aluminoborate glasses. <i>Physical Review Materials</i> , 2017 , 1,	3.2	22
132	Statistical Mechanical Modeling of Borate Glass Structure and Topology: Prediction of Superstructural Units and Glass Transition Temperature. <i>Journal of Physical Chemistry B</i> , 2019 , 123, 12062-12113	3.4	22
131	Metal-Organic Framework Glasses Possess Higher Thermal Conductivity than Their Crystalline Counterparts. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 18893-18903	9.5	21
130	Linking Equilibrium and Nonequilibrium Dynamics in Glass-Forming Systems. <i>Journal of Physical Chemistry B</i> , 2016 , 120, 3226-31	3.4	21
129	Universal behavior of changes in elastic moduli of hot compressed oxide glasses. <i>Chemical Physics Letters</i> , 2016 , 651, 88-91	2.5	21
128	Network Glasses Under Pressure: Permanent Densification in Modifier-Free Al ₂ O ₃ B ₂ O ₃ P ₂ O ₅ BiO ₂ Systems. <i>Physical Review Applied</i> , 2017 , 7,	4.3	21
127	Photoelastic response of alkaline earth aluminosilicate glasses. <i>Optics Letters</i> , 2012 , 37, 293-5	3	20
126	Impact of nitridation of metaphosphate glasses on liquid fragility. <i>Journal of Non-Crystalline Solids</i> , 2016 , 441, 22-28	3.9	20
125	Pressure-induced changes in interdiffusivity and compressive stress in chemically strengthened glass. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 10436-44	9.5	19
124	Relaxation kinetics of the mechanical properties of an aluminosilicate glass. <i>Journal of Non-Crystalline Solids</i> , 2013 , 362, 40-46	3.9	19
123	Glass-forming ability of soda lime borate liquids. <i>Journal of Non-Crystalline Solids</i> , 2012 , 358, 658-665	3.9	19

122	Sub-critical crack growth in silicate glasses: Role of network topology. <i>Applied Physics Letters</i> , 2015 , 107, 141901	3.4	19
121	Volume and structural relaxation in compressed sodium borate glass. <i>Physical Chemistry Chemical Physics</i> , 2016 , 18, 29879-29891	3.6	19
120	Structure-property relations in calcium aluminate glasses containing different divalent cations and SiO ₂ . <i>Journal of Non-Crystalline Solids</i> , 2015 , 427, 160-165	3.9	18
119	Crucial effect of angular flexibility on the fracture toughness and nano-ductility of aluminosilicate glasses. <i>Journal of Non-Crystalline Solids</i> , 2016 , 454, 46-51	3.9	18
118	Persistent Near Infrared Phosphorescence from Rare Earth Ions Co-doped Strontium Aluminate Phosphors. <i>Journal of the Electrochemical Society</i> , 2011 , 158, K17	3.9	18
117	Fragility and configurational heat capacity of calcium aluminosilicate glass-forming liquids. <i>Journal of Non-Crystalline Solids</i> , 2017 , 461, 24-34	3.9	17
116	Topological engineering of glasses using temperature-dependent constraints. <i>MRS Bulletin</i> , 2017 , 42, 29-33	3.2	17
115	Observation of indentation-induced shear bands in a metal-organic framework glass. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 10149-10154	11.5	17
114	Structural dependence of chemical durability in modified aluminoborate glasses. <i>Journal of the American Ceramic Society</i> , 2019 , 102, 1157-1168	3.8	17
113	Revisiting the Dependence of Poisson's Ratio on Liquid Fragility and Atomic Packing Density in Oxide Glasses. <i>Materials</i> , 2019 , 12,	3.5	17
112	Minimalist landscape model of glass relaxation. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2012 , 391, 3446-3459	3.3	17
111	Modifying glass surfaces via internal diffusion. <i>Journal of Non-Crystalline Solids</i> , 2010 , 356, 290-298	3.9	17
110	The role of the network-modifiers' field-strength in the chemical durability of aluminoborate glasses. <i>Journal of Non-Crystalline Solids</i> , 2019 , 505, 279-285	3.9	17
109	Structural Compromise between High Hardness and Crack Resistance in Aluminoborate Glasses. <i>Journal of Physical Chemistry B</i> , 2018 , 122, 6287-6295	3.4	17
108	Atomic picture of structural relaxation in silicate glasses. <i>Applied Physics Letters</i> , 2019 , 114, 233703	3.4	16
107	Liquidus surface of MgO-CaO-Al ₂ O ₃ -SiO ₂ glass-forming systems. <i>Journal of Non-Crystalline Solids</i> , 2013 , 363, 39-45	3.9	16
106	Indentation size effect and the plastic compressibility of glass. <i>Applied Physics Letters</i> , 2014 , 104, 251906	3.4	16
105	Cooling rate effects on the structure of 45S5 bioglass: Insights from experiments and simulations. <i>Journal of Non-Crystalline Solids</i> , 2020 , 534, 119952	3.9	15

104	Environmental effects on fatigue of alkaline earth aluminosilicate glass with varying fictive temperature. <i>Journal of Non-Crystalline Solids</i> , 2013 , 379, 161-168	3.9	15
103	Composition and pressure effects on the structure, elastic properties and hardness of aluminoborosilicate glass. <i>Journal of Non-Crystalline Solids</i> , 2020 , 530, 119797	3.9	15
102	On the relation between fracture toughness and crack resistance in oxide glasses. <i>Journal of Non-Crystalline Solids</i> , 2020 , 534, 119946	3.9	14
101	Time and humidity dependence of indentation cracking in aluminosilicate glasses. <i>Journal of Non-Crystalline Solids</i> , 2018 , 491, 64-70	3.9	14
100	Are the dynamics of a glass embedded in its elastic properties?. <i>Journal of Chemical Physics</i> , 2013 , 138, 12A501	3.9	14
99	Cation Diffusivity and the Mixed Network Former Effect in Borosilicate Glasses. <i>Journal of Physical Chemistry B</i> , 2015 , 119, 7106-15	3.4	14
98	Revealing hidden medium-range order in amorphous materials using topological data analysis. <i>Science Advances</i> , 2020 , 6,	14.3	14
97	A medium range order structural connection to the configurational heat capacity of borate-silicate mixed glasses. <i>Physical Chemistry Chemical Physics</i> , 2016 , 18, 10887-95	3.6	14
96	Topological Origin of the Network Dilation Anomaly in Ion-Exchanged Glasses. <i>Physical Review Applied</i> , 2017 , 8,	4.3	13
95	Surface-luminescence from thermally reduced bismuth-doped sodium aluminosilicate glasses. <i>Journal of Non-Crystalline Solids</i> , 2012 , 358, 3193-3199	3.9	13
94	Theoretical Calculation and Measurement of the Hardness of Diopside. <i>Journal of the American Ceramic Society</i> , 2008 , 91, 514-518	3.8	13
93	Predictive model for the composition dependence of glassy dynamics. <i>Journal of the American Ceramic Society</i> , 2018 , 101, 1169-1179	3.8	13
92	Elasticity, hardness, and fracture toughness of sodium aluminoborosilicate glasses. <i>Journal of the American Ceramic Society</i> , 2019 , 102, 4520-4537	3.8	13
91	Mixed alkali silicophosphate oxynitride glasses: Structure-property relations. <i>Journal of Non-Crystalline Solids</i> , 2017 , 462, 51-64	3.9	12
90	Compositional control of the photoelastic response of silicate glasses. <i>Optical Materials</i> , 2013 , 35, 2435-2439	3.9	12
89	Aqueous batch rebinding and selectivity studies on sucrose imprinted polymers. <i>Biosensors and Bioelectronics</i> , 2009 , 25, 623-8	11.8	12
88	Raman spectroscopy study of pressure-induced structural changes in sodium borate glass. <i>Journal of Non-Crystalline Solids</i> , 2016 , 443, 130-135	3.9	12
87	Modifier clustering and avoidance principle in borosilicate glasses: A molecular dynamics study. <i>Journal of Chemical Physics</i> , 2019 , 150, 044502	3.9	11

86	Thermal history dependence of indentation induced densification in an aluminosilicate glass. <i>Journal of Non-Crystalline Solids</i> , 2016 , 445-446, 34-39	3.9	11
85	Predicting Q-Speciation in Binary Phosphate Glasses Using Statistical Mechanics. <i>Journal of Physical Chemistry B</i> , 2018 , 122, 7609-7615	3.4	11
84	Aging in chalcogenide glasses: Origin and consequences. <i>Journal of Non-Crystalline Solids</i> , 2012 , 358, 129-132	3.3	11
83	Distinguishability of particles in glass-forming systems. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2012 , 391, 5392-5403	3.3	11
82	Redox reactions and inward cationic diffusion in glasses caused by CO and H ₂ gases. <i>Solid State Ionics</i> , 2009 , 180, 1121-1124	3.3	11
81	Correlation between alkaline earth diffusion and fragility of silicate glasses. <i>Journal of Physical Chemistry B</i> , 2009 , 113, 11194-200	3.4	11
80	Effect of nanoscale phase separation on the fracture behavior of glasses: Toward tough, yet transparent glasses. <i>Physical Review Materials</i> , 2018 , 2,	3.2	11
79	Effects of Thermal and Pressure Histories on the Chemical Strengthening of Sodium Aluminosilicate Glass. <i>Frontiers in Materials</i> , 2016 , 3,	4	11
78	Pressure-driven structural depolymerization of zinc phosphate glass. <i>Journal of Non-Crystalline Solids</i> , 2017 , 469, 31-38	3.9	10
77	New insights into the structure of sodium silicate glasses by force-enhanced atomic refinement. <i>Journal of Non-Crystalline Solids</i> , 2020 , 536, 120006	3.9	10
76	Pressure-induced structural changes in titanophosphate glasses studied by neutron and X-ray total scattering analyses. <i>Journal of Non-Crystalline Solids</i> , 2018 , 483, 50-59	3.9	10
75	Viscosity and Fragility of Alkaline-Earth Sodium Boroaluminosilicate Liquids. <i>Journal of the American Ceramic Society</i> , 2013 , 96, 2831-2838	3.8	10
74	Surface modification of polyvalent element-containing glasses. <i>Applied Surface Science</i> , 2009 , 256, 202-207	3.7	10
73	Alkali diffusivity in alkaline earth sodium boroaluminosilicate glasses. <i>Solid State Ionics</i> , 2014 , 263, 95-98	3.3	9
72	Bond Switching in Densified Oxide Glass Enables Record-High Fracture Toughness. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 17753-17765	9.5	9
71	Nano-phase separation and structural ordering in silica-rich mixed network former glasses. <i>Physical Chemistry Chemical Physics</i> , 2018 , 20, 15707-15717	3.6	9
70	Mechanical property optimization of a zinc borate glass by lanthanum doping. <i>Journal of Non-Crystalline Solids</i> , 2019 , 520, 119461	3.9	8
69	Quantifying the internal stress in over-constrained glasses by molecular dynamics simulations. <i>Journal of Non-Crystalline Solids: X</i> , 2019 , 1, 100013	2.5	8

68	Role of elastic deformation in determining the mixed alkaline earth effect of hardness in silicate glasses. <i>Journal of Applied Physics</i> , 2015 , 117, 034903	2.5	8
67	Predicting Composition-Structure Relations in Alkali Borosilicate Glasses Using Statistical Mechanics. <i>Frontiers in Materials</i> , 2019 , 6,	4	8
66	Advancing the Mechanical Performance of Glasses: Perspectives and Challenges. <i>Advanced Materials</i> , 2021 , e2109029	24	8
65	Predicting the early-stage creep dynamics of gels from their static structure by machine learning. <i>Acta Materialia</i> , 2021 , 210, 116817	8.4	8
64	Non-conservation of the total alkali concentration in ion-exchanged glass. <i>Journal of Non-Crystalline Solids</i> , 2014 , 387, 71-75	3.9	7
63	Abnormal Luminescence Behavior in Bi-Doped Borosilicate Glasses. <i>Journal of the Electrochemical Society</i> , 2011 , 158, G151	3.9	7
62	Combining high hardness and crack resistance in mixed network glasses through high-temperature densification. <i>Physical Review Materials</i> , 2018 , 2,	3.2	7
61	Boron anomaly in the thermal conductivity of lithium borate glasses. <i>Physical Review Materials</i> , 2019 , 3,	3.2	7
60	Heat conduction in oxide glasses: Balancing diffusons and propagons by network rigidity. <i>Applied Physics Letters</i> , 2020 , 117, 031901	3.4	7
59	Bond switching is responsible for nanoductility in zeolitic imidazolate framework glasses. <i>Dalton Transactions</i> , 2021 , 50, 6126-6132	4.3	7
58	Deformation and cracking behavior of La ₂ O ₃ -doped oxide glasses with high Poisson's ratio. <i>Journal of Non-Crystalline Solids</i> , 2018 , 494, 86-93	3.9	7
57	Mixed Alkali Effect in Silicate Glass Structure: Viewpoint of Si Nuclear Magnetic Resonance and Statistical Mechanics. <i>Journal of Physical Chemistry B</i> , 2020 , 124, 10292-10299	3.4	6
56	Accessing Forbidden Glass Regimes through High-Pressure Sub-T Annealing. <i>Scientific Reports</i> , 2017 , 7, 46631	4.9	6
55	Effect of divalent cations and SiO ₂ on the crystallization behavior of calcium aluminate glasses. <i>Journal of Non-Crystalline Solids</i> , 2015 , 413, 20-23	3.9	6
54	Liquidus Temperature of SrO-Al ₂ O ₃ -SiO ₂ Glass-Forming Compositions. <i>International Journal of Applied Glass Science</i> , 2013 , 4, 225-230	1.8	6
53	Inward and Outward Diffusion of Modifying Ions and its Impact on the Properties of Glasses and Glass-Ceramics. <i>International Journal of Applied Glass Science</i> , 2011 , 2, 117-128	1.8	6
52	Inward Cationic Diffusion and Percolation Transition in Glass-Ceramics. <i>Journal of the American Ceramic Society</i> , 2010 , 93, 2161-2163	3.8	6
51	Indentation cracking and deformation mechanism of sodium aluminoborosilicate glasses. <i>Journal of the American Ceramic Society</i> , 2020 , 103, 1656-1665	3.8	6

50	Mechanics, Ionics, and Optics of Metal-Organic Framework and Coordination Polymer Glasses. <i>Nano Letters</i> , 2021 , 21, 6382-6390	11.5	6
49	Pressure-induced structural transformations in phosphorus oxynitride glasses. <i>Journal of Non-Crystalline Solids</i> , 2016 , 452, 153-160	3.9	6
48	Permanent Densification of Calcium Aluminophosphate Glasses. <i>Frontiers in Materials</i> , 2019 , 6,	4	5
47	On the equivalence of vapor-deposited and melt-quenched glasses. <i>Journal of Chemical Physics</i> , 2020 , 152, 164504	3.9	5
46	Structural stability of NaPON glass upon heating in air and nitrogen. <i>Journal of Non-Crystalline Solids</i> , 2018 , 482, 137-146	3.9	5
45	Competitive effects of modifier charge and size on mechanical and chemical resistance of aluminoborate glasses. <i>Journal of Non-Crystalline Solids</i> , 2018 , 499, 264-271	3.9	5
44	Predicting Fracture Propensity in Amorphous Alumina from Its Static Structure Using Machine Learning. <i>ACS Nano</i> , 2021 ,	16.7	5
43	Atomic structure of hot compressed borosilicate glasses. <i>Journal of the American Ceramic Society</i> , 2020 , 103, 6215-6225	3.8	5
42	Photoelastic response of permanently densified oxide glasses. <i>Optical Materials</i> , 2017 , 67, 155-161	3.3	4
41	Structure, properties, and fabrication of calcium aluminate-based glasses. <i>International Journal of Applied Glass Science</i> , 2019 , 10, 488-501	1.8	4
40	Topological model of alkali germanate glasses and exploration of the germanate anomaly. <i>Journal of the American Ceramic Society</i> , 2020 , 103, 4224-4233	3.8	4
39	Structural impact of nitrogen incorporation on properties of alkali germanophosphate glasses. <i>Journal of the American Ceramic Society</i> , 2018 , 101, 5004-5019	3.8	4
38	Relationship between viscous dynamics and the configurational thermal expansion coefficient of glass-forming liquids. <i>Journal of Non-Crystalline Solids</i> , 2012 , 358, 648-651	3.9	4
37	Achieving ultrahigh crack resistance in glass through humid aging. <i>Physical Review Materials</i> , 2020 , 4,	3.2	4
36	Analytical model of the network topology and rigidity of calcium aluminosilicate glasses. <i>Journal of the American Ceramic Society</i> , 2021 , 104, 3947-3962	3.8	4
35	Liquid fragility determination of oxide glass-formers using temperature-modulated DSC. <i>International Journal of Applied Glass Science</i> , 2019 , 10, 321-329	1.8	4
34	Competitive effects of free volume, rigidity, and self-adaptivity on indentation response of silicoaluminoborate glasses. <i>Journal of the American Ceramic Society</i> , 2020 , 103, 944-954	3.8	4
33	Parametric study of temperature-modulated differential scanning calorimetry for high-temperature oxide glasses with varying fragility. <i>Journal of Non-Crystalline Solids</i> , 2018 , 484, 84-94	3.9	3

32	Statistical Mechanical Model of Topological Fluctuations and the Intermediate Phase in Binary Phosphate Glasses. <i>Journal of Physical Chemistry B</i> , 2019 , 123, 7640-7648	3.4	3
31	Predicting Cation Interactions in Alkali Aluminoborate Glasses using Statistical Mechanics. <i>Journal of Non-Crystalline Solids</i> , 2020 , 544, 120099	3.9	3
30	Thermal conductivity of densified borosilicate glasses. <i>Journal of Non-Crystalline Solids</i> , 2021 , 557, 120644	3.9	3
29	Confocal depth-resolved micro-X-ray absorption spectroscopy study of chemically strengthened boroaluminosilicate glasses. <i>RSC Advances</i> , 2016 , 6, 24060-24065	3.7	3
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