Chris Benmore

List of Publications by Citations

220 papers	6,498 citations	46 h-index	70 g-index
242 ext. papers	7,301 ext. citations	4.3 avg, IF	5.87 L-index

#	Paper	IF	Citations
220	Benchmark oxygen-oxygen pair-distribution function of ambient water from x-ray diffraction measurements with a wide Q-range. *Journal of Chemical Physics*, **2013**, 138, 074506	3.9	330
219	Quantum Differences between Heavy and Light Water. *Physical Review Letters*, **2008**, 101, 065502	7.4	292
218	Structural studies of several distinct metastable forms of amorphous ice. *Science*, **2002**, 297, 1320-3	33.3	238
217	Nanostructure of calcium silicate hydrates in cements. *Physical Review Letters*, **2010**, 104, 195502	7.4	175
216	Detection of first-order liquid/liquid phase transitions in yttrium oxide-aluminum oxide melts. *Science*, **2008**, 322, 566-70	33.3	155
215	Formation and structure of a dense octahedral glass. *Physical Review Letters*, **2004**, 93, 115502	7.4	143
214	Structural and topological changes in silica glass at pressure. *Physical Review B*, **2010**, 81,	3.3	135
213	Diffusive dynamics during the high-to-low density transition in amorphous ice. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 8193-8198	11.5	119
212	The structure of liquid ethanol: A neutron diffraction and molecular dynamics study. *Journal of Chemical Physics*, **2000**, 112, 5877-5883	3.9	107
211	The structure of water around the compressibility minimum. *Journal of Chemical Physics*, **2014**, 141, 214507	3.9	94
210	Intermediate range order in vitreous silica from a partial structure factor analysis. *Physical Review B* , **2008**, 78,	3.3	92
209	The structure of subcritical and supercritical methanol by neutron diffraction, empirical potential structure refinement, and spherical harmonic analysis. *Journal of Chemical Physics*, **2000**, 112, 8976-8987	3.9	90
208	The study of disorder and nanocrystallinity in C[illegible]H, supplementary cementitious materials and geopolymers using pair distribution function analysis. *Cement and Concrete Research*, **2011**, 41, 696-710	10.3	86
207	Structure of liquid SiO2: a measurement by high-energy x-ray diffraction. *Physical Review Letters*, **2007**, 98, 057802	7.4	86
206	Relationship between topological order and glass forming ability in densely packed enstatite and forsterite composition glasses. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 14780-5	11.5	81
205	Area detector corrections for high quality synchrotron X-ray structure factor measurements. *Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, **2012**, 662, 61-70	1.2	77
204	Intermediate-range order in permanently densified GeO2 glass. *Physical Review Letters*, **2003**, 90, 115502	7.4	77

203	Compositional changes of the first sharp diffraction peak in binary selenide glasses. *Physical Review B*, **2005**, 72,	3.3	75
202	Temperature dependence of isotopic quantum effects in water. *Physical Review Letters*, **2005**, 94, 047801	7.4	73
201	Isotopic quantum effects in water structure measured with high energy photon diffraction. *Journal of Physics Condensed Matter*, **2000**, 12, 2597-2612	1.8	72
200	Evidence of different structures in magnesium silicate liquids: coordination changes in forsterite- to enstatite-composition glasses. *Chemical Geology*, **2004**, 213, 281-291	4.2	71
199	Joint diffraction and modeling approach to the structure of liquid alumina. *Physical Review B*, **2013**, 87,	3.3	70
198	Compositional Evolution of Calcium Silicate Hydrate (C-S-H) Structures by Total X-Ray Scattering. *Journal of the American Ceramic Society*, **2012**, 95, 793-798	3.8	68
197	Revisiting the hydration structure of aqueous Na. *Journal of Chemical Physics*, **2017**, 146, 084504	3.9	66
196	Topological changes in glassy GeSe2 at pressures up to 9.3GPa determined by high-energy x-ray and neutron diffraction measurements. *Physical Review B*, **2006**, 74,	3.3	62
195	On the structure of liquid hydrogen fluoride. *Angewandte Chemie - International Edition*, **2004**, 43, 1952-5	16.4	61
194	Coordination changes in magnesium silicate glasses. *Europhysics Letters*, **2004**, 67, 212-218	1.6	60
193	Acoustic levitator for structure measurements on low temperature liquid droplets. *Review of Scientific Instruments*, **2009**, 80, 083904	1.7	59
192	Molten uranium dioxide structure and dynamics. *Science*, **2014**, 346, 984-7	33.3	58
191	A molecular dynamics simulation interpretation of neutron and x-ray diffraction measurements on single phase Y(2)O(3)-Al(2)O(3) glasses. *Journal of Physics Condensed Matter*, **2009**, 21, 205102	1.8	58
190	Combining flagelliform and dragline spider silk motifs to produce tunable synthetic biopolymer fibers. *Biopolymers*, **2012**, 97, 418-31	2.2	57
189	Structure of the floating water bridge and water in an electric field. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 16463-8	11.5	57
188	Short, intermediate and mesoscopic range order in sulfur-rich binary glasses. *Journal of Non-Crystalline Solids*, **2006**, 352, 63-70	3.9	57
187	Machine learning coarse grained models for water. *Nature Communications*, **2019**, 10, 379	17.4	55
186	Evidence for a temperature-driven structural transformation in liquid bismuth. *Europhysics Letters*, **2009**, 86, 36004	1.6	55

185	Establishing the structure of GeS(2) at high pressures and temperatures: a combined approach using x-ray and neutron diffraction. *Journal of Physics Condensed Matter*, **2009**, 21, 474217	1.8	53
184	A neutron diffraction study of yttrium- and lanthanum-aluminate glasses. *Journal of Non-Crystalline Solids*, **2002**, 297, 143-155	3.9	53
183	Structure of molten titanium dioxide. *Physical Review B*, **2014**, 90,	3.3	51
182	Pressure-induced crystallization of amorphous red phosphorus. *Solid State Communications*, **2012**, 152, 390-394	1.6	50
181	Structure of fast ion conducting and semiconducting glassy chalcogenide alloys. *Physical Review Letters*, **1994**, 73, 264-267	7.4	50
180	Low cation coordination in oxide melts. *Physical Review Letters*, **2014**, 112, 157801	7.4	48
179	Structure of molten CaSiO3: neutron diffraction isotope substitution with aerodynamic levitation and molecular dynamics study. *Journal of Physical Chemistry B*, **2012**, 116, 13439-47	3.4	48
178	High-pressure x-ray diffraction measurements on vitreous GeO2 under hydrostatic conditions. *Physical Review B*, **2010**, 81,	3.3	48
177	Structure of high alumina content Al2O3-SiO2 composition glasses. *Journal of Physical Chemistry B*, **2008**, 112, 16726-33	3.4	48
176	Direct structural measurements of relaxation processes during transformations in amorphous ice. *Physical Review B*, **2003**, 68,	3.3	47
175	Acoustic levitation: recent developments and emerging opportunities in biomaterials research. *European Biophysics Journal*, **2012**, 41, 397-403	1.9	46
174	A Review of High-Energy X-Ray Diffraction from Glasses and Liquids. *ISRN Materials Science*, **2012**, 2012, 1-19		46
173	Temperature-dependent structural heterogeneity in calcium silicate liquids. *Physical Review B*, **2010** , 82,	3.3	43
172	Investigation of the intermediate- and high-density forms of amorphous ice by molecular dynamics calculations and diffraction experiments. *Physical Review B*, **2005**, 71,	3.3	43
171	Network topology for the formation of solvated electrons in binary CaO-Al2O3 composition glasses. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 10129-34	11.5	42
170	Network rigidity in GeSe2 glass at high pressure. *Physical Review Letters*, **2008**, 100, 115501	7.4	41
169	Intermediate range chemical ordering in amorphous and liquid water, Si, and Ge. *Physical Review B*, **2005**, 72,	3.3	41
168	X-ray Scattering and O-O Pair-Distribution Functions of Amorphous Ices. *Journal of Physical Chemistry B*, **2018**, 122, 7616-7624	3.4	40

167	Amorphization of Molecular Liquids of Pharmaceutical Drugs by Acoustic Levitation. *Physical Review X*, **2011**, 1,	9.1	40
166	Structural characterization and aging of glassy pharmaceuticals made using acoustic levitation. *Journal of Pharmaceutical Sciences*, **2013**, 102, 1290-300	3.9	38
165	More accurate X-ray scattering data of deeply supercooled bulk liquid water. *Molecular Physics*, **2011**, 109, 279-288	1.7	38
164	The structure of saturated lithium–ammonia and potassium–ammonia solutions as studied by using neutron diffraction. *Journal of Chemical Physics*, **2000**, 112, 7147-7151	3.9	38
163	The structure of alkali silicate gel by total scattering methods. *Cement and Concrete Research*, **2010**, 40, 892-897	10.3	36
162	High-pressure behavior of As2O3: Amorphous-amorphous and crystalline-amorphous transitions. *Physical Review B*, **2008**, 77,	3.3	36
161	Experimental determination of the electron density of liquid H2O and D2O. *Journal of Physics Condensed Matter*, **2002**, 14, L429-L433	1.8	36
160	In situ diffraction studies of magnesium silicate liquids. *Journal of Materials Science*, **2008**, 43, 4707-4713	4.3	35
159	Machine-learned interatomic potentials by active learning: amorphous and liquid hafnium dioxide. *Npj Computational Materials*, **2020**, 6,	10.9	34
158	A neutron and x-ray diffraction study of calcium aluminate glasses. *Journal of Physics Condensed Matter*, **2003**, 15, S2413-S2423	1.8	33
157	Measurements of liquid and glass structures using aerodynamic levitation and in-situ high energy x-ray and neutron scattering. *Journal of Non-Crystalline Solids*, **2014**, 383, 49-51	3.9	32
156	ISOMER-X: a program for the analysis of high-energy X-ray diffraction experiments. *Journal of Applied Crystallography*, **2003**, 36, 368-368	3.8	32
155	The structure of liquid water up to 360 MPa from x-ray diffraction measurements using a high Q-range and from molecular simulation. *Journal of Chemical Physics*, **2016**, 144, 134504	3.9	32
154	Unraveling the atomic structure of Ge-rich sulfide glasses. *Physical Chemistry Chemical Physics*, **2013**, 15, 8487-94	3.6	31
153	A structural study of very high-density amorphous ice. *Chemical Physics Letters*, **2004**, 397, 335-339	2.5	31
152	The Structure of Amorphous and Deeply Supercooled Liquid Alumina. *Frontiers in Materials*, **2019**, 6,	4	29
151	A perforated diamond anvil cell for high-energy x-ray diffraction of liquids and amorphous solids at high pressure. *Review of Scientific Instruments*, **2010**, 81, 035110	1.7	29
150	Isotope quantum effects in water around the freezing point. *Journal of Chemical Physics*, **2006**, 124, 134505	3.9	29

149	Temperature-Driven Structural Transitions in Molten Sodium Borates Na2OB2O3: X-ray Diffraction, Thermodynamic Modeling, and Implications for Topological Constraint Theory. *Journal of Physical Chemistry C*, **2016**, 120, 553-560	3.8	28
148	Long Range Potential Effects in Low Density Krypton Gas. *Physical Review Letters*, **1997**, 79, 221-224	7.4	28
147	The structure of a poly(ethylene oxide) melt from neutron scattering and molecular dynamics simulations. *Journal of Chemical Physics*, **2001**, 115, 10998-11003	3.9	27
146	Structure of fast-ion conducting chalcogenide glasses: the Ag?As?Se system. *Journal of Non-Crystalline Solids*, **1993**, 156-158, 720-724	3.9	27
145	The temperature dependence of intermediate range oxygen-oxygen correlations in liquid water. *Journal of Chemical Physics*, **2016**, 145, 084503	3.9	27
144	A neutron diffraction study of nano-crystalline graphite oxide. *Carbon*, **2009**, 47, 2239-2243	10.4	26
143	In Situ Diffraction from Levitated Solids Under Extreme Conditions:Structure and Thermal Expansion in the Eu2O3?ZrO2 System. *Journal of the American Ceramic Society*, **2015**, 98, 1292-1299	3.8	25
142	Structure and diffusion of ZnO:SrO:CaO:Na2O:SiO2 bioactive glasses: a combined high energy X-ray diffraction and molecular dynamics simulations study. *RSC Advances*, **2013**, 3, 5966	3.7	25
141	Changes in the local environment surrounding magnesium ions in fragile MgO-SiO 2 liquids. *Europhysics Letters*, **2010**, 89, 26005	1.6	25
140	Adding a length scale to the polyamorphic ice debate. *Physical Review Letters*, **2006**, 97, 115503	7.4	25
139	Structure of lanthanum and cerium phosphate glasses by the method of isomorphic substitution in neutron diffraction. *Physical Review B*, **2003**, 68,	3.3	25
138	Probing disorder in pyrochlore oxides using in situ synchrotron diffraction from levitated solids-A thermodynamic perspective. *Scientific Reports*, **2018**, 8, 10658	4.9	24
137	Structural Changes in Vitreous GeSe4 under Pressure. *Journal of Physical Chemistry C*, **2012**, 116, 2212-2217	4.8	24
136	High-energy X-ray diffraction from aluminosilicate liquids. *Journal of Physical Chemistry B*, **2010**, 114, 5742-6	3.4	24
135	Structure and bonding in single- and two-phase alumina-based glasses. *Physical Chemistry Chemical Physics*, **2004**, 6, 2480	3.6	23
134	A time resolved high energy X-ray diffraction study of cooling liquid SiO2. *Physical Chemistry Chemical Physics*, **2013**, 15, 8566-72	3.6	22
133	Liquid B2O3 up to 1700 K: x-ray diffraction and boroxol ring dissolution. *Journal of Physics Condensed Matter*, **2015**, 27, 455104	1.8	22
132	Structural quantum isotope effects in amorphous beryllium hydride. *Journal of Chemical Physics*, **2003**, 119, 12499-12502	3.9	22

131	Local Structure of Ion Pair Interaction in Lapatinib Amorphous Dispersions characterized by Synchrotron X-Ray diffraction and Pair Distribution Function Analysis. *Scientific Reports*, **2017**, 7, 46367	4.9	21
130	Aerodynamic levitation, supercooled liquids and glass formation. *Advances in Physics: X*, **2017**, 2, 717-736	5.1	21
129	The Structure of Liquid and Amorphous Hafnia. *Materials*, **2017**, 10,	3.5	21
128	Structural studies on amorphous silicon boron nitride Si3B3N7: neutron contrast technique on nitrogen and high energy X-ray diffraction. *Journal of Materials Chemistry*, **1999**, 9, 2865-2869		21
127	Structure and thermal expansion of Lu2O3 and Yb2O3 up to the melting points. *Journal of Nuclear Materials*, **2017**, 495, 385-391	3.3	20
126	Continuous Structural Transition in Glass-Forming Molten Titanate BaTi2O5. *Journal of Physical Chemistry C*, **2016**, 120, 26974-26985	3.8	20
125	High pressure x-ray diffraction measurements on Mg2SiO4 glass. *Journal of Non-Crystalline Solids*, **2011**, 357, 2632-2636	3.9	20
124	Composition and polyamorphism in supercooled yttria–alumina melts. *Journal of Non-Crystalline Solids*, **2011**, 357, 435-441	3.9	19
123	Diffraction study of calcium aluminate glasses and melts: II. High energy x-ray diffraction on melts. *Journal of Physics Condensed Matter*, **2008**, 20, 245107	1.8	19
122	Structural changes in supercooled Al2O3-Y2O3 liquids. *Physical Chemistry Chemical Physics*, **2013**, 15, 8589-605	3.6	18
121	The Local Structure of Triphenyl Phosphite Studied Using Spallation Neutron and High-Energy X-ray Diffraction. *Journal of Physical Chemistry B*, **2004**, 108, 20076-20082	3.4	18
120	Aerodynamic levitator for in situ x-ray structure measurements on high temperature and molten nuclear fuel materials. *Review of Scientific Instruments*, **2016**, 87, 073902	1.7	18
119	Structure of Glasses and Melts. *Reviews in Mineralogy and Geochemistry*, **2006**, 63, 275-311	7.1	17
118	A structural comparison of supercooled water and intermediate density amorphous ices. *Molecular Physics*, **2004**, 102, 2007-2014	1.7	17
117	Structural features of ISG borosilicate nuclear waste glasses revealed from high-energy X-ray diffraction and molecular dynamics simulations. *Journal of Nuclear Materials*, **2019**, 515, 284-293	3.3	17
116	Total x-ray scattering of spider dragline silk. *Physical Review Letters*, **2012**, 108, 178102	7.4	16
115	DFT Accurate Interatomic Potential for Molten NaCl from Machine Learning. *Journal of Physical Chemistry C*, **2020**, 124, 25760-25768	3.8	16
114	Structural studies of Bi2O3-Nb2O5-TeO2 glasses. *Journal of Non-Crystalline Solids*, **2016**, 451, 68-76	3.9	15

113	Diffraction study of calcium aluminate glasses and melts: I. High energy x-ray and neutron diffraction on glasses around the eutectic composition. *Journal of Physics Condensed Matter*, **2008**, 20, 245106	1.8	15
112	Structure Of Binary Cao?al2o3 And Sro?al2o3 Liquids By Combined Levitation-neutron Diffraction. *Journal of Neutron Research*, **2003**, 11, 113-121	0.5	15
111	Amorphous tantala and its relationship with the molten state. *Physical Review Materials*, **2018**, 2,	3.2	15
110	Characterizing Pressure-Induced Coordination Changes in CaAl2O4 Glass Using 27Al NMR. *Journal of Physical Chemistry C*, **2012**, 116, 2068-2073	3.8	14
109	Evidence for Tetrahedral Zinc in Amorphous In2□xZnxSnxO3 (a-ZITO). *Zeitschrift Fur Anorganische Und Allgemeine Chemie*, **2011**, 637, 885-894	1.3	14
108	Influence of rare-earth ions on SiO□NaO-REO□ glass structure. *Journal of Physics Condensed Matter*, **2011**, 23, 065404	1.8	14
107	Short-Range Disorder in TeO Melt and Glass. *Journal of Physical Chemistry Letters*, **2020**, 11, 427-431	6.4	14
106	Combined computational and experimental investigation of high temperature thermodynamics and structure of cubic ZrO and HfO. *Scientific Reports*, **2018**, 8, 14962	4.9	14
105	Intermediate range order in supercooled water. *Molecular Physics*, **2019**, 117, 2470-2476	1.7	13
104	Low-Dimensional Network Formation in Molten Sodium Carbonate. *Scientific Reports*, **2016**, 6, 24415	4.9	13
103	The nature of intermediate-range order in Ge-As-S glasses: results from reverse Monte Carlo modeling. *Journal of Physics Condensed Matter*, **2010**, 22, 115404	1.8	13
102	Structure, topology and chemical order in Ge-As-Te glasses: a high-energy x-ray diffraction study. *Journal of Physics Condensed Matter*, **2010**, 22, 405401	1.8	13
101	Orientational correlations in the glacial state of triphenyl phosphite. *Journal of Physical Chemistry B* , **2006**, 110, 9747-50	3.4	13
100	Isotopic quantum effects on the structure of low density amorphous ice. *Journal of Physics Condensed Matter*, **2003**, 15, 3657-3664	1.8	13
99	Borate melt structure: Temperature-dependent B□O bond lengths and coordination numbers from high-energy X-ray diffraction. *Journal of the American Ceramic Society*, **2018**, 101, 3357-3371	3.8	12
98	A neutron-X-ray, NMR and calorimetric study of glassy Probucol synthesized using containerless techniques. *Chemical Physics*, **2013**, 424, 89-92	2.3	12
97	Comment on QMolecular arrangement in water: random but not quiteQ*Journal of Physics Condensed Matter*, **2012**, 24, 338001; discussion 338002	1.8	12
96	A combined neutron and x-ray diffraction study of short- and intermediate-range structural characteristics of Ge□As sulfide glasses. *Journal of Physics Condensed Matter*, **2008**, 20, 335105	1.8	12

95	The structure of densified As2O3 glasses. *Journal of Non-Crystalline Solids*, **2007**, 353, 1755-1758	3.9	12
94	Bulk moduli and high pressure crystal structure of U3Si2. *Journal of Nuclear Materials*, **2019**, 523, 135-142	3.3	11
93	Bent HgI2 Molecules in the Melt and Sulfide Glasses: Implications for Nonlinear Optics. *Chemistry of Materials*, **2019**, 31, 4103-4112	9.6	11
92	Pressure induced structural transformations in amorphous MgSiO3 and CaSiO3. *Journal of Non-Crystalline Solids: X*, **2019**, 3, 100024	2.5	11
91	Compositional Variation of Short- and Intermediate-Range Structure and Chemical Order in GeAs Sulfide Glasses: A Neutron Diffraction Study. *Journal of Physical Chemistry C*, **2008**, 112, 7263-7269	3.8	11
90	Comment on "Nature of the polyamorphic transition in ice under pressure". *Physical Review Letters*, **2006**, 96, 149601; discussion 149602	7.4	11
89	Analysis of high-energy x-ray diffraction data at high pressure: the case of vitreous AsO at 32 GPa. *Journal of Physics Condensed Matter*, **2007**, 19, 415103	1.8	11
88	The structure of permanently densified CaAl2O4 glass. *Journal of Physics and Chemistry of Solids*, **2006**, 67, 2106-2110	3.9	11
87	On the variation of the structure of liquid deuterium fluoride with temperature. *Journal of Chemical Physics*, **2004**, 121, 6448-55	3.9	11
86	X-ray studies of the transformation from high- to low-density amorphous water. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2019**, 377, 20180164	3	10
85	X-ray Intermolecular Structure Factor(XISF): separation of intra- and intermolecular interactions from total X-ray scattering data. *Journal of Applied Crystallography*, **2015**, 48, 950-952	3.8	10
84	Sample containment for neutron and high-energy x-ray scattering studies of hydrogen fluoride and related molecular species. *Review of Scientific Instruments*, **2003**, 74, 4410-4417	1.7	10
83	Modeling the atomic structure of very high-density amorphous ice. *Physical Review B*, **2005**, 72,	3.3	10
82	Temperature dependence of structural quantum effects in liquid methanol. *Europhysics Letters*, **2001**, 55, 341-347	1.6	10
81	Probing the Nature of Acetylene Bound to the Active Site of a NiNaZeolite Y Catalyst by in situ Neutron Scattering. *Journal of Physical Chemistry B*, **2000**, 104, 7570-7573	3.4	10
80	Quantum effects in the electronic structure of liquid methanol measured by -ray diffraction. *Journal of Physics Condensed Matter*, **1996**, 8, 9429-9432	1.8	9
79	Pressure-Driven Chemical Disorder in Glassy AsS up to 14.7 GPa, Postdensification Effects, and Applications in Materials Design. *Journal of Physical Chemistry B*, **2020**, 124, 430-442	3.4	9
78	Automated Development of Molten Salt Machine Learning Potentials: Application to LiCl. *Journal of Physical Chemistry Letters*, **2021**, 12, 4278-4285	6.4	9

77	Experimentally Driven Automated Machine-Learned Interatomic Potential for a Refractory Oxide. *Physical Review Letters*, **2021**, 126, 156002	7.4	9
76	A SAXS-WAXS study of the endothermic transitions in amorphous or supercooled liquid itraconazole. *Thermochimica Acta*, **2016**, 644, 1-5	2.9	9
75	The structure of liquid alkali nitrates and nitrites. *Physical Chemistry Chemical Physics*, **2017**, 19, 21625-21638	3.6	8
74	Comment on "liquid-liquid phase transition in supercooled yttria-alumina". *Physical Review Letters*, **2011**, 106, 119601; author reply 119602	7.4	8
73	In situ high-pressure X-ray diffraction study of densification of a molecular chalcogenide glass. *Journal of Physics and Chemistry of Solids*, **2008**, 69, 2336-2340	3.9	8
72	Isotopic quantum effects in the structure of liquid methanol: I. Experiments with high-energy photon diffraction. *Journal of Physics Condensed Matter*, **2001**, 13, 11405-11420	1.8	8
71	The structure of liquid fluorosulfuric acid investigated by neutron diffraction. *Journal of Chemical Physics*, **2002**, 117, 3816-3821	3.9	8
70	Thermal expansion in UO2 determined by high-energy X-ray diffraction. *Journal of Nuclear Materials*, **2016**, 479, 19-22	3.3	8
69	Phase transformations in oxides above 2000 °C: experimental technique development. *Advances in Applied Ceramics*, **2018**, 117, s82-s89	2.3	8
68	Structural properties of Y2O3–Al2O3 liquids and glasses: An overview. *Journal of Non-Crystalline Solids*, **2015**, 407, 228-234	3.9	7
67	Nanometer-Scale Correlations in Aqueous Salt Solutions. *Journal of Physical Chemistry Letters*, **2020**, 11, 2598-2604	6.4	7
66	Corium lavas: structure and properties of molten UO-ZrO under meltdown conditions. *Scientific Reports*, **2018**, 8, 2434	4.9	7
65	High-energy X-ray diffraction of a hydrous silicate liquid under conditions of high pressure and temperature in a modified hydrothermal diamond anvil cell. *High Pressure Research*, **2014**, 34, 100-109	1.6	7
64	Supercooling of aqueous solutions subjected to different thermal treatments. *Journal of Chemical Physics*, **1998**, 108, 6558-6560	3.9	7
63	Structural analysis of xCsCl(1 −x)Ga2S3 glasses. *Journal of Non-Crystalline Solids*, **2008**, 354, 134-137	3.9	7
62	Very strong hydrogen bonds in a bent chain structure of fluorohydrogenate anions in liquid Cs(FH)2.3F. *Journal of Chemical Physics*, **2008**, 129, 014512	3.9	7
61	Structure of Nd-doped glasses measured by isotopic substitution in neutron diffraction. *Applied Physics Letters*, **2003**, 83, 4954-4956	3.4	7
60	Quantum effects in the structure of liquid benzene at room temperature. *Molecular Physics*, **2001**, 99, 787-794	1.7	7

59	Methane as a normalisation standard for gases in thermal neutron experiments. *Journal of Neutron Research*, **1998**, 6, 279-285	0.5	7
58	A neutron Brillouin scattering study of Mg70Zn30. *Journal of Physics Condensed Matter*, **1995**, 7, 4775-4788	1.8	7
57	Amorphous dispersions of flubendazole in hydroxypropyl methylcellulose: Formulation stability assisted by pair distribution function analysis. *International Journal of Pharmaceutics*, **2021**, 600, 120500	6.5	7
56	Bulk Glassy GeTe2: A Missing Member of the Tetrahedral GeX2 Family and a Precursor for the Next Generation of Phase-Change Materials. *Chemistry of Materials*, **2021**, 33, 1031-1045	9.6	7
55	Using containerless methods to develop amorphous pharmaceuticals. *Biochimica Et Biophysica Acta - General Subjects*, **2017**, 1861, 3686-3692	4	6
54	Structure and Liquid Fragility in Sodium Carbonate. *Journal of Physical Chemistry A*, **2018**, 122, 1071-1076	2.8	6
53	Fluid Structure of Molten LiCl-Li Solutions. *Journal of Physical Chemistry B*, **2019**, 123, 10036-10043	3.4	6
52	The structure of liquid UO2 in reducing gas atmospheres. *Applied Physics Letters*, **2017**, 110, 081904	3.4	6
51	Scientific Review: Polyamorphism and Extreme Environments on GLAD. *Neutron News*, **2004**, 15, 16-18	0.4	6
50	On the Structure of Liquid Hydrogen Fluoride. *Angewandte Chemie*, **2004**, 116, 1986-1989	3.6	6
49	The Structure of Carbon Dioxide around Naphthalene Investigated using H/D Substitution in Neutron Diffraction. *Industrial & Engineering Chemistry Research*, **2000**, 39, 4491-4495	3.9	6
48	Neutron diffraction study of long-range interactions in gaseous krypton. *Journal of Physics Condensed Matter*, **1999**, 11, 3091-3104	1.8	6
47	Longitudinal excitations in Mg70Zn30glass. *Journal of Physics Condensed Matter*, **1999**, 11, 7079-7088	1.8	6
46	Mercury Sulfide Dimorphism in Thioarsenate Glasses. *Journal of Physical Chemistry B*, **2016**, 120, 5278-90	3.4	6
45	Unraveling the Atomic Structure of Bulk Binary Ga-Te Glasses with Surprising Nanotectonic Features for Phase-Change Memory Applications. *ACS Applied Materials & Interfaces*, **2021**, 13, 37363-37379	9.5	6
44	Structure of semiconducting versus fast-ion conducting glasses in the Ag-Ge-Se system. *Royal Society Open Science*, **2018**, 5, 171401	3.3	5
43	High-Pressure Research at the Advanced Photon Source. *Synchrotron Radiation News*, **2010**, 23, 32-38	0.6	5
42	Influence of molten status on nanoquasicrystalline-forming Zr-based metallic glasses. *Applied Physics Letters*, **2008**, 93, 261905	3.4	5

41	Isotopic effects in the structure of liquid methanol: II. Experimental data in Fourier space. *Journal of Physics Condensed Matter*, **2001**, 13, 11421-11434	1.8	5
40	Atypical phase-change alloy Ga2Te3: atomic structure, incipient nanotectonic nuclei, and multilevel writing. *Journal of Materials Chemistry C*,	7.1	5
39	Molten barium titanate: a high-pressure liquid silicate analogue. *Journal of Physics Condensed Matter*, **2019**, 31, 20LT01	1.8	5
38	Rare-earth titanate melt structure and glass formation. *International Journal of Applied Glass Science*, **2019**, 10, 463-478	1.8	4
37	Structure of rare-earth chalcogenide glasses by neutron and x-ray diffraction. *Journal of Physics Condensed Matter*, **2017**, 29, 225703	1.8	3
36	Ionic transport and atomic structure of AgI-HgS-GeS2 glasses. *Pure and Applied Chemistry*, **2019**, 91, 1807-1820	2.1	3
35	In Situ High-Temperature Synchrotron Diffraction Studies of (Fe,Cr,Al)O Spinels. *Inorganic Chemistry*, **2020**, 59, 5949-5957	5.1	3
34	Experimental and Theoretical Insights into the Structure of Tellurium Chloride Glasses. *Inorganic Chemistry*, **2018**, 57, 2517-2528	5.1	3
33	Levitating water droplets formed by mist particles in an acoustic field **2014**,		3
32	Formalism for the determination of structural isotope effects with neutrons. *Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, **2009**, 600, 257-259	1.2	3
31	Comment on "Oxygen as a site specific probe of the structure of water and oxide materials". *Physical Review Letters*, **2012**, 108, 259603; discussion 259604	7.4	3
30	Comment on "Microscopic structural evolution during the liquid-liquid transition in triphenyl phosphite" by R Kurita, Y Shinohara, Y Amemiya and H Tanaka J. Phys.: Condens. Matter 19 (2007) 152101. *Journal of Physics Condensed Matter*, **2007**, 19, 408001	1.8	3
29	Structural Role of Water in a Sodium Phosphate Glass by Neutron Diffraction. *Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences*, **2004**, 59, 879-887	1.4	3
28	Isotopic quantum effects in the structure of liquid ethanol. *Canadian Journal of Physics*, **2002**, 80, 1059-1068	1.1	3
27	Probing the Structure of Melts, Glasses, and Amorphous Materials. *Elements*, **2021**, 17, 175-180	3.8	3
26	Redox-structure dependence of molten iron oxides. *Communications Materials*, **2020**, 1,	6	2
25	Isotopic quantum correction to liquid methanol at -30 °C. *Applied Physics A: Materials Science and Processing*, **2002**, 74, s1670-s1672	2.6	2
24	Structure of oxychloride glasses by neutron and x-ray "difference" and x-ray photoelectron spectroscopy. *Journal of Physics Condensed Matter*, **2003**, 15, 4679-4693	1.8	2

23	On the structure of boron trifluoride in liquid and supercritical phase investigated with neutron diffraction. *Journal of Chemical Physics*, **2003**, 119, 6671-6679	3.9	2
22	Long-Range Structures of Amorphous Solid Water. *Journal of Physical Chemistry B*, **2021**, 125, 13320-13328	3.4	2
21	Small- and Wide-Angle X-ray Scattering Studies of Liquid−Liquid Phase Separation in Silicate Melts. *ACS Earth and Space Chemistry*, **2020**, 4, 1888-1894	3.2	2
20	Structure of crystalline and amorphous materials in the NASICON system NaAlGe(PO). *Journal of Chemical Physics*, **2021**, 155, 074501	3.9	2
19	Consequences of sp2−sp3 boron isomerization in supercooled liquid borates. *Applied Physics Letters* , **2020**, 117, 131901	3.4	1
18	Topological ordering in liquid UO2. *Journal of Physics Condensed Matter*, **2016**, 28, 015102	1.8	1
17	Network topology of deeply supercooled water. *Molecular Physics*, **2019**, 117, 3217-3226	1.7	1
16	Exploring the structure of glass-forming liquids using high energy X-ray diffraction, containerless methodology and molecular dynamics simulation. *Journal of Non-Crystalline Solids: X*, **2019**, 3, 100027	2.5	1
15	Exploring the Structure of High Temperature, Iron-bearing Liquids. *Materials Today: Proceedings*, **2015**, 2, S358-S363	1.4	1
14	Note: Detector collimators for the nanoscale ordered materials diffractometer instrument at the Spallation Neutron Source. *Review of Scientific Instruments*, **2015**, 86, 096105	1.7	1
13	Instrumentation for structure measurements on highly non-equilibrium materials. *Diamond Light Source Proceedings*, **2011**, 1,		1
12	In situ measurement of the structure of supercooled oxide liquids. *Diamond Light Source Proceedings*, **2011**, 1,		1
11	12. Structure of Glasses and Melts **2006**, 275-312		1
10	Hot-melt extrudability of amorphous solid dispersions of flubendazole-copovidone: An exploratory study of the effect of drug loading and the balance of adjuvants on extrudability and dissolution.. *International Journal of Pharmaceutics*, **2022**, 614, 121456	6.5	1
9	Vanadium Oxidation States and Structural Role in Aluminoborosilicate Glasses: An Integrated Experimental and Molecular Dynamics Simulation Study. *Journal of Physical Chemistry B*, **2021**, 125, 12365-12377	3.4	1
8	Hard x-ray methods for studying the structure of amorphous thin films and bulk glassy oxides. *Journal of Physics Condensed Matter*, **2021**, 33,	1.8	1
7	Structure of ice confined in silica nanopores. *Physical Chemistry Chemical Physics*, **2021**, 23, 12706-12717	3.6	0
6	Structures of glass-forming liquids by x-ray scattering: Glycerol, xylitol, and D-sorbitol.. *Journal of Chemical Physics*, **2021**, 155, 244508	3.9	0

5	Octahedral oxide glass network in ambient pressure neodymium titanate.. *Scientific Reports*, **2022**, 12, 8258	4.9	0
4	Combining Data from Multiple Techniques **2012**, 1		
3	Quantitative measurements of phase transitions in nano- and glassy materials. *Journal of Physics: Conference Series*, **2010**, 215, 012021	0.3	
2	Structures of glasses created by multiple kinetic arrests.. *Journal of Chemical Physics*, **2022**, 156, 084504	3.9	
1	Unexpected role of metal halides in a chalcogenide glass network. *Materials and Design*, **2022**, 216, 110547	8.1	