

Chris Benmore

List of Publications by Year in descending order

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236
papers

8,207
citations

38660

50
h-index

64668

79
g-index

242
all docs

242
docs citations

242
times ranked

6491
citing authors

#	ARTICLE	IF	CITATIONS
1	Benchmark oxygen-oxygen pair-distribution function of ambient water from x-ray diffraction measurements with a wide Q -range. <i>Journal of Chemical Physics</i> , 2013, 138, 074506.	1.2	407
2	Quantum Differences between Heavy and Light Water. <i>Physical Review Letters</i> , 2008, 101, 065502.	2.9	357
3	Structural Studies of Several Distinct Metastable Forms of Amorphous Ice. <i>Science</i> , 2002, 297, 1320-1323.	6.0	250
4	Nanostructure of Calcium Silicate Hydrates in Cements. <i>Physical Review Letters</i> , 2010, 104, 195502.	2.9	215
5	Detection of First-Order Liquid/Liquid Phase Transitions in Yttrium Oxide-Aluminum Oxide Melts. <i>Science</i> , 2008, 322, 566-570.	6.0	184
6	Structural and topological changes in silica glass at pressure. <i>Physical Review B</i> , 2010, 81, .	1.1	160
7	Formation and Structure of a Dense Octahedral Glass. <i>Physical Review Letters</i> , 2004, 93, 115502.	2.9	158
8	Diffusive dynamics during the high-to-low density transition in amorphous ice. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 8193-8198.	3.3	155
9	The structure of water around the compressibility minimum. <i>Journal of Chemical Physics</i> , 2014, 141, 214507.	1.2	132
10	The structure of liquid ethanol: A neutron diffraction and molecular dynamics study. <i>Journal of Chemical Physics</i> , 2000, 112, 5877-5883.	1.2	121
11	Intermediate range order in vitreous silica from a partial structure factor analysis. <i>Physical Review B</i> , 2008, 78, .	1.1	114
12	Relationship between topological order and glass forming ability in densely packed enstatite and forsterite composition glasses. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 14780-14785.	3.3	109
13	Machine learning coarse grained models for water. <i>Nature Communications</i> , 2019, 10, 379.	5.8	108
14	Structure of Liquid SiO ₂ : A Measurement by High-Energy X-Ray Diffraction. <i>Physical Review Letters</i> , 2007, 98, 057802.	2.9	106
15	Area detector corrections for high quality synchrotron X-ray structure factor measurements. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2012, 662, 61-70.	0.7	104
16	The structure of subcritical and supercritical methanol by neutron diffraction, empirical potential structure refinement, and spherical harmonic analysis. <i>Journal of Chemical Physics</i> , 2000, 112, 8976-8987.	1.2	100
17	Machine-learned interatomic potentials by active learning: amorphous and liquid hafnium dioxide. <i>Npj Computational Materials</i> , 2020, 6, .	3.5	100
18	The study of disorder and nanocrystallinity in C-S-H, supplementary cementitious materials and geopolymers using pair distribution function analysis. <i>Cement and Concrete Research</i> , 2011, 41, 696-710.	4.6	99

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19	Joint diffraction and modeling approach to the structure of liquid alumina. Physical Review B, 2013, 87, .	1.1	95
20	Revisiting the hydration structure of aqueous Na+. Journal of Chemical Physics, 2017, 146, 084504.	1.2	90
21	Compositional changes of the first sharp diffraction peak in binary selenide glasses. Physical Review B, 2005, 72, .	1.1	87
22	Compositional Evolution of Calcium Silicate Hydrate (Ca_2H) Structures by Total X-Ray Scattering. Journal of the American Ceramic Society, 2012, 95, 793-798.	1.9	86
23	Intermediate-Range Order in Permanently Densified GeO_2 Glass. Physical Review Letters, 2003, 90, 115502.	2.9	81
24	Evidence of different structures in magnesium silicate liquids: coordination changes in forsterite- to enstatite-composition glasses. Chemical Geology, 2004, 213, 281-291.	1.4	81
25	Molten uranium dioxide structure and dynamics. Science, 2014, 346, 984-987.	6.0	80
26	Isotopic quantum effects in water structure measured with high energy photon diffraction. Journal of Physics Condensed Matter, 2000, 12, 2597-2612.	0.7	79
27	Temperature Dependence of Isotopic Quantum Effects in Water. Physical Review Letters, 2005, 94, 047801.	2.9	79
28	Coordination changes in magnesium silicate glasses. Europhysics Letters, 2004, 67, 212-218.	0.7	76
29	A molecular dynamics simulation interpretation of neutron and x-ray diffraction measurements on single phase $\text{Y}_2\text{O}_3\text{-Al}_2\text{O}_3$ glasses. Journal of Physics Condensed Matter, 2009, 21, 205102.	0.7	74
30	On the Structure of Liquid Hydrogen Fluoride. Angewandte Chemie - International Edition, 2004, 43, 1952-1955.	7.2	71
31	Structure of molten titanium dioxide. Physical Review B, 2014, 90, .	1.1	70
32	Short, intermediate and mesoscopic range order in sulfur-rich binary glasses. Journal of Non-Crystalline Solids, 2006, 352, 63-70.	1.5	68
33	Combining flagelliform and dragline spider silk motifs to produce tunable synthetic biopolymer fibers. Biopolymers, 2012, 97, 418-431.	1.2	67
34	Acoustic levitator for structure measurements on low temperature liquid droplets. Review of Scientific Instruments, 2009, 80, 083904.	0.6	66
35	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, 16463-16468.	3.3	65
36	A Review of High-Energy X-Ray Diffraction from Glasses and Liquids. ISRN Materials Science, 2012, 2012, 1-19.	1.0	65

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37	A neutron diffraction study of yttrium- and lanthanum-aluminate glasses. <i>Journal of Non-Crystalline Solids</i> , 2002, 297, 143-155.	1.5	64
38	Topological changes in glassy GeSe_2 at pressures up to 9.3 GPa determined by high-energy x-ray and neutron diffraction measurements. <i>Physical Review B</i> , 2006, 74, .	1.1	64
39	Evidence for a temperature-driven structural transformation in liquid bismuth. <i>Europhysics Letters</i> , 2009, 86, 36004.	0.7	64
40	Low Cation Coordination in Oxide Melts. <i>Physical Review Letters</i> , 2014, 112, 157801.	2.9	62
41	Structure of High Alumina Content $\text{Al}_2\text{O}_3\text{-SiO}_2$ Composition Glasses. <i>Journal of Physical Chemistry B</i> , 2008, 112, 16726-16733.	1.2	60
42	Establishing the structure of GeS_2 at high pressures and temperatures: a combined approach using x-ray and neutron diffraction. <i>Journal of Physics Condensed Matter</i> , 2009, 21, 474217.	0.7	59
43	Acoustic levitation: recent developments and emerging opportunities in biomaterials research. <i>European Biophysics Journal</i> , 2012, 41, 397-403.	1.2	58
44	Pressure-induced crystallization of amorphous red phosphorus. <i>Solid State Communications</i> , 2012, 152, 390-394.	0.9	58
45	X-ray Scattering and O-O Pair-Distribution Functions of Amorphous Ices. <i>Journal of Physical Chemistry B</i> , 2018, 122, 7616-7624.	1.2	58
46	Structure of Molten CaSiO_3 : Neutron Diffraction Isotope Substitution with Aerodynamic Levitation and Molecular Dynamics Study. <i>Journal of Physical Chemistry B</i> , 2012, 116, 13439-13447.	1.2	56
47	Structure of Fast Ion Conducting and Semiconducting Glassy Chalcogenide Alloys. <i>Physical Review Letters</i> , 1994, 73, 264-267.	2.9	55
48	High-pressure x-ray diffraction measurements on vitreous GeO_2 under hydrostatic conditions. <i>Physical Review B</i> , 2010, 81, .	1.1	53
49	Network topology for the formation of solvated electrons in binary $\text{CaO-Al}_2\text{O}_3\text{-O}$ composition glasses. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 10129-10134.	3.3	52
50	The Structure of Amorphous and Deeply Supercooled Liquid Alumina. <i>Frontiers in Materials</i> , 2019, 6, .	1.2	51
51	Direct structural measurements of relaxation processes during transformations in amorphous ice. <i>Physical Review B</i> , 2003, 68, .	1.1	50
52	Investigation of the intermediate- and high-density forms of amorphous ice by molecular dynamics calculations and diffraction experiments. <i>Physical Review B</i> , 2005, 71, .	1.1	48
53	Temperature-dependent structural heterogeneity in calcium silicate liquids. <i>Physical Review B</i> , 2010, 82, .	1.1	48
54	Amorphization of Molecular Liquids of Pharmaceutical Drugs by Acoustic Levitation. <i>Physical Review X</i> , 2011, 1, .	2.8	48

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55	Intermediate range chemical ordering in amorphous and liquid water, Si, and Ge. Physical Review B, 2005, 72, .	1.1	47
56	Network Rigidity in GeSe_2 Glass at High Pressure. Physical Review Letters, 2008, 100, 115501.	2.9	46
57	The structure of alkali silicate gel by total scattering methods. Cement and Concrete Research, 2010, 40, 892-897.	4.6	46
58	Structural Characterization and Aging of Glassy Pharmaceuticals made Using Acoustic Levitation. Journal of Pharmaceutical Sciences, 2013, 102, 1290-1300.	1.6	46
59	Unraveling the atomic structure of Ge-rich sulfide glasses. Physical Chemistry Chemical Physics, 2013, 15, 8487.	1.3	45
60	The structure of saturated lithium and potassium ammonia solutions as studied by using neutron diffraction. Journal of Chemical Physics, 2000, 112, 7147-7151.	1.2	43
61	More accurate X-ray scattering data of deeply supercooled bulk liquid water. Molecular Physics, 2011, 109, 279-288.	0.8	41
62	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.	1.5	41
63	In situ diffraction studies of magnesium silicate liquids. Journal of Materials Science, 2008, 43, 4707-4713.	1.7	40
64	Temperature-Driven Structural Transitions in Molten Sodium Borates $\text{Na}_2\text{O} \cdot \text{B}_2\text{O}_3$: X-ray Diffraction, Thermodynamic Modeling, and Implications for Topological Constraint Theory. Journal of Physical Chemistry C, 2016, 120, 553-560.	1.5	40
65	A neutron and x-ray diffraction study of calcium aluminate glasses. Journal of Physics Condensed Matter, 2003, 15, S2413-S2423.	0.7	39
66	High-pressure behavior of As_2S_3 Amorphous-amorphous and crystalline-amorphous transitions. Physical Review B, 2008, 77, .	1.1	39
67	DFT Accurate Interatomic Potential for Molten NaCl from Machine Learning. Journal of Physical Chemistry C, 2020, 124, 25760-25768.	1.5	39
68	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.	1.2	38
69	Aerodynamic levitation, supercooled liquids and glass formation. Advances in Physics: X, 2017, 2, 717-736.	1.5	38
70	Experimental determination of the electron density of liquid H ₂ O and D ₂ O. Journal of Physics Condensed Matter, 2002, 14, L429-L433.	0.7	37
71	A time resolved high energy X-ray diffraction study of cooling liquid SiO ₂ . Physical Chemistry Chemical Physics, 2013, 15, 8566.	1.3	35
72	Combined computational and experimental investigation of high temperature thermodynamics and structure of cubic ZrO ₂ and HfO ₂ . Scientific Reports, 2018, 8, 14962.	1.6	35

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73	ISOMER-X: a program for the analysis of high-energy X-ray diffraction experiments. <i>Journal of Applied Crystallography</i> , 2003, 36, 368-368.	1.9	33
74	Aerodynamic levitator for <i>in situ</i> x-ray structure measurements on high temperature and molten nuclear fuel materials. <i>Review of Scientific Instruments</i> , 2016, 87, 073902.	0.6	33
75	The temperature dependence of intermediate range oxygen-oxygen correlations in liquid water. <i>Journal of Chemical Physics</i> , 2016, 145, 084503.	1.2	33
76	Structure and thermal expansion of Lu ₂ O ₃ and Yb ₂ O ₃ up to the melting points. <i>Journal of Nuclear Materials</i> , 2017, 495, 385-391.	1.3	33
77	Probing disorder in pyrochlore oxides using <i>in situ</i> synchrotron diffraction from levitated solids—A thermodynamic perspective. <i>Scientific Reports</i> , 2018, 8, 10658.	1.6	33
78	Structural features of ISG borosilicate nuclear waste glasses revealed from high-energy X-ray diffraction and molecular dynamics simulations. <i>Journal of Nuclear Materials</i> , 2019, 515, 284-293.	1.3	33
79	A structural study of very high-density amorphous ice. <i>Chemical Physics Letters</i> , 2004, 397, 335-339.	1.2	32
80	A perforated diamond anvil cell for high-energy x-ray diffraction of liquids and amorphous solids at high pressure. <i>Review of Scientific Instruments</i> , 2010, 81, 035110.	0.6	32
81	The structure of a poly(ethylene oxide) melt from neutron scattering and molecular dynamics simulations. <i>Journal of Chemical Physics</i> , 2001, 115, 10998-11003.	1.2	31
82	The Structure of Liquid and Amorphous Hafnia. <i>Materials</i> , 2017, 10, 1290.	1.3	31
83	Isotope quantum effects in water around the freezing point. <i>Journal of Chemical Physics</i> , 2006, 124, 134505.	1.2	30
84	Liquid B ₂ O ₃ up to 1700 K: x-ray diffraction and boroxol ring dissolution. <i>Journal of Physics Condensed Matter</i> , 2015, 27, 455104.	0.7	30
85	Local Structure of Ion Pair Interaction in Lapatinib Amorphous Dispersions characterized by Synchrotron X-Ray diffraction and Pair Distribution Function Analysis. <i>Scientific Reports</i> , 2017, 7, 46367.	1.6	29
86	Structure of fast-ion conducting chalcogenide glasses: the Ag ⁺ —As ⁺ —Se system. <i>Journal of Non-Crystalline Solids</i> , 1993, 156-158, 720-724.	1.5	28
87	Long Range Potential Effects in Low Density Krypton Gas. <i>Physical Review Letters</i> , 1997, 79, 221-224.	2.9	28
88	Changes in the local environment surrounding magnesium ions in fragile MgO-SiO ₂ liquids. <i>Europhysics Letters</i> , 2010, 89, 26005.	0.7	28
89	High-Energy X-ray Diffraction from Aluminosilicate Liquids. <i>Journal of Physical Chemistry B</i> , 2010, 114, 5742-5746.	1.2	28
90	Structure and diffusion of ZnO—SrO—CaO—Na ₂ O—SiO ₂ bioactive glasses: a combined high energy X-ray diffraction and molecular dynamics simulations study. <i>RSC Advances</i> , 2013, 3, 5966.	1.7	28

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91	<i>In Situ</i> Diffraction from Levitated Solids Under Extreme Conditions—Structure and Thermal Expansion in the Eu_2O_3 – ZrO_2 System. <i>Journal of the American Ceramic Society</i> , 2015, 98, 1292-1299.	1.9	28
92	Borate melt structure: Temperature-dependent B–O bond lengths and coordination numbers from high-energy X-ray diffraction. <i>Journal of the American Ceramic Society</i> , 2018, 101, 3357-3371.	1.9	28
93	Experimentally Driven Automated Machine-Learned Interatomic Potential for a Refractory Oxide. <i>Physical Review Letters</i> , 2021, 126, 156002.	2.9	28
94	High pressure x-ray diffraction measurements on Mg_2SiO_4 glass. <i>Journal of Non-Crystalline Solids</i> , 2011, 357, 2632-2636.	1.5	27
95	Continuous Structural Transition in Glass-Forming Molten Titanate BaTi_2O_5 . <i>Journal of Physical Chemistry C</i> , 2016, 120, 26974-26985.	1.5	27
96	Structural quantum isotope effects in amorphous beryllium hydride. <i>Journal of Chemical Physics</i> , 2003, 119, 12499-12502.	1.2	26
97	Structure and bonding in single- and two-phase alumina-based glasses. <i>Physical Chemistry Chemical Physics</i> , 2004, 6, 2480.	1.3	26
98	Structure of Glasses and Melts. <i>Reviews in Mineralogy and Geochemistry</i> , 2006, 63, 275-311.	2.2	26
99	A neutron diffraction study of nano-crystalline graphite oxide. <i>Carbon</i> , 2009, 47, 2239-2243.	5.4	26
100	Automated Development of Molten Salt Machine Learning Potentials: Application to LiCl. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 4278-4285.	2.1	26
101	Structure of lanthanum and cerium phosphate glasses by the method of isomorphic substitution in neutron diffraction. <i>Physical Review B</i> , 2003, 68, .	1.1	25
102	Adding a Length Scale to the Polyamorphic Ice Debate. <i>Physical Review Letters</i> , 2006, 97, 115503.	2.9	25
103	Structural Changes in Vitreous GeSe_4 under Pressure. <i>Journal of Physical Chemistry C</i> , 2012, 116, 2212-2217.	1.5	25
104	Diffraction study of calcium aluminate glasses and melts: II. High energy x-ray diffraction on melts. <i>Journal of Physics Condensed Matter</i> , 2008, 20, 245107.	0.7	24
105	Bulk moduli and high pressure crystal structure of U_3Si_2 . <i>Journal of Nuclear Materials</i> , 2019, 523, 135-142.	1.3	23
106	Intermediate range order in supercooled water. <i>Molecular Physics</i> , 2019, 117, 2470-2476.	0.8	23
107	Structural studies on amorphous silicon boron nitride $\text{Si}_3\text{B}_3\text{N}_7$: neutron contrast technique on nitrogen and high energy X-ray diffraction. <i>Journal of Materials Chemistry</i> , 1999, 9, 2865-2869.	6.7	22
108	Pressure induced structural transformations in amorphous MgSiO_3 and CaSiO_3 . <i>Journal of Non-Crystalline Solids: X</i> , 2019, 3, 100024.	0.5	22

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109	Short-Range Disorder in TeO ₂ Melt and Glass. Journal of Physical Chemistry Letters, 2020, 11, 427-431.	2.1	22
110	Amorphous tantalum and its relationship with the molten state. Physical Review Materials, 2018, 2, .	0.9	21
111	Structure Of Binary CaO-Al ₂ O ₃ And SrO-Al ₂ O ₃ Liquids By Combined Levitation-neutron Diffraction. Journal of Neutron Research, 2003, 11, 113-121.	0.4	20
112	Composition and polyamorphism in supercooled yttria-alumina melts. Journal of Non-Crystalline Solids, 2011, 357, 435-441.	1.5	20
113	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.	1.2	19
114	Structural changes in supercooled Al ₂ O ₃ -Y ₂ O ₃ liquids. Physical Chemistry Chemical Physics, 2013, 15, 8589.	1.3	19
115	A structural comparison of supercooled water and intermediate density amorphous ices. Molecular Physics, 2004, 102, 2007-2014.	0.8	18
116	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.	0.7	18
117	Influence of rare-earth ions on SiO ₂ -Na ₂ O-RE ₂ O ₃ glass structure. Journal of Physics Condensed Matter, 2011, 23, 065404.	0.7	18
118	Corium lavas: structure and properties of molten UO ₂ -ZrO ₂ under meltdown conditions. Scientific Reports, 2018, 8, 2434.	1.6	18
119	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.	0.7	17
120	Total X-Ray Scattering of Spider Dragline Silk. Physical Review Letters, 2012, 108, 178102.	2.9	17
121	Low-Dimensional Network Formation in Molten Sodium Carbonate. Scientific Reports, 2016, 6, 24415.	1.6	17
122	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.	1.6	17
123	Bulk Glassy GeTe ₂ : A Missing Member of the Tetrahedral GeX ₂ Family and a Precursor for the Next Generation of Phase-Change Materials. Chemistry of Materials, 2021, 33, 1031-1045.	3.2	17
124	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.	0.7	16
125	Structural studies of Bi ₂ O ₃ -Nb ₂ O ₅ -TeO ₂ glasses. Journal of Non-Crystalline Solids, 2016, 451, 68-76.	1.5	16
126	Pressure-Driven Chemical Disorder in Glassy As ₂ S ₃ up to 14.7 GPa, Postdensification Effects, and Applications in Materials Design. Journal of Physical Chemistry B, 2020, 124, 430-442.	1.2	16

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127	Redox-structure dependence of molten iron oxides. <i>Communications Materials</i> , 2020, 1, .	2.9	16
128	Probing the Nature of Acetylene Bound to the Active Site of a NiNa ⁺ Zeolite Y Catalyst by in situ Neutron Scattering. <i>Journal of Physical Chemistry B</i> , 2000, 104, 7570-7573.	1.2	15
129	Evidence for Tetrahedral Zinc in Amorphous $\text{In}_{2-x}\text{Zn}_x\text{Sn}_x\text{O}_3$ (<i>a</i> -ZITO). <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , 2011, 637, 885-894.	0.6	15
130	Characterizing Pressure-Induced Coordination Changes in CaAl_2O_4 Glass Using ²⁷ Al NMR. <i>Journal of Physical Chemistry C</i> , 2012, 116, 2068-2073.	1.5	15
131	Comment on "Molecular arrangement in water: random but not quite" TM . <i>Journal of Physics Condensed Matter</i> , 2012, 24, 338001.	0.7	15
132	Orientalional Correlations in the Glacial State of Triphenyl Phosphite. <i>Journal of Physical Chemistry B</i> , 2006, 110, 9747-9750.	1.2	14
133	The structure of permanently densified CaAl_2O_4 glass. <i>Journal of Physics and Chemistry of Solids</i> , 2006, 67, 2106-2110.	1.9	14
134	Isotopic quantum effects on the structure of low density amorphous ice. <i>Journal of Physics Condensed Matter</i> , 2003, 15, 3657-3664.	0.7	13
135	Modeling the atomic structure of very high-density amorphous ice. <i>Physical Review B</i> , 2005, 72, .	1.1	13
136	The structure of densified As_2O_3 glasses. <i>Journal of Non-Crystalline Solids</i> , 2007, 353, 1755-1758.	1.5	13
137	A combined neutron and x-ray diffraction study of short- and intermediate-range structural characteristics of Ge ⁺ As sulfide glasses. <i>Journal of Physics Condensed Matter</i> , 2008, 20, 335105.	0.7	13
138	A neutron-X-ray, NMR and calorimetric study of glassy Probuocol synthesized using containerless techniques. <i>Chemical Physics</i> , 2013, 424, 89-92.	0.9	13
139	X-ray Intermolecular Structure Factor (XISF): separation of intra- and intermolecular interactions from total X-ray scattering data. <i>Journal of Applied Crystallography</i> , 2015, 48, 950-952.	1.9	13
140	Bent Hg_2 Molecules in the Melt and Sulfide Glasses: Implications for Nonlinear Optics. <i>Chemistry of Materials</i> , 2019, 31, 4103-4112.	3.2	13
141	Crystal Chemistry and Thermodynamics of HREE (Er, Yb) Mixing in a Xenotime Solid Solution. <i>ACS Earth and Space Chemistry</i> , 2022, 6, 1375-1389.	1.2	13
142	Temperature dependence of structural quantum effects in liquid methanol. <i>Europhysics Letters</i> , 2001, 55, 341-347.	0.7	12
143	Sample containment for neutron and high-energy x-ray scattering studies of hydrogen fluoride and related molecular species. <i>Review of Scientific Instruments</i> , 2003, 74, 4410-4417.	0.6	12
144	On the variation of the structure of liquid deuterium fluoride with temperature. <i>Journal of Chemical Physics</i> , 2004, 121, 6448-6455.	1.2	12

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145	Compositional Variation of Short- and Intermediate-Range Structure and Chemical Order in Ge ²⁺ As Sulfide Glasses: A Neutron Diffraction Study. <i>Journal of Physical Chemistry C</i> , 2008, 112, 7263-7269.	1.5	12
146	The structure of liquid alkali nitrates and nitrites. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 21625-21638.	1.3	12
147	Amorphous dispersions of flubendazole in hydroxypropyl methylcellulose: Formulation stability assisted by pair distribution function analysis. <i>International Journal of Pharmaceutics</i> , 2021, 600, 120500.	2.6	12
148	Unraveling the Atomic Structure of Bulk Binary Ga ⁴⁺ Te Glasses with Surprising Nanotectonic Features for Phase-Change Memory Applications. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 37363-37379.	4.0	12
149	Atypical phase-change alloy Ga ₂ Te ₃ : atomic structure, incipient nanotectonic nuclei, and multilevel writing. <i>Journal of Materials Chemistry C</i> , 2021, 9, 17019-17032.	2.7	12
150	The structure of liquid fluorosulfuric acid investigated by neutron diffraction. <i>Journal of Chemical Physics</i> , 2002, 117, 3816-3821.	1.2	11
151	Comment on "Nature of the Polyamorphic Transition in Ice under Pressure", <i>Physical Review Letters</i> , 2006, 96, 149601; discussion 149602.	2.9	11
152	Analysis of high-energy x-ray diffraction data at high pressure: the case of vitreous As ₂ O ₃ at 32 GPa. <i>Journal of Physics Condensed Matter</i> , 2007, 19, 415103.	0.7	11
153	Thermal expansion in UO ₂ determined by high-energy X-ray diffraction. <i>Journal of Nuclear Materials</i> , 2016, 479, 19-22.	1.3	11
154	A SAXS-WAXS study of the endothermic transitions in amorphous or supercooled liquid itraconazole. <i>Thermochimica Acta</i> , 2016, 644, 1-5.	1.2	11
155	Phase transformations in oxides above 2000 Å°C: experimental technique development. <i>Advances in Applied Ceramics</i> , 2018, 117, s82-s89.	0.6	11
156	Quantum effects in the electronic structure of liquid methanol measured by -ray diffraction. <i>Journal of Physics Condensed Matter</i> , 1996, 8, 9429-9432.	0.7	10
157	Structural properties of Y ₂ O ₃ -Al ₂ O ₃ liquids and glasses: An overview. <i>Journal of Non-Crystalline Solids</i> , 2015, 407, 228-234.	1.5	10
158	Structure of semiconducting versus fast-ion conducting glasses in the Ag ⁺ -Ge ⁴⁺ -Se system. <i>Royal Society Open Science</i> , 2018, 5, 171401.	1.1	10
159	Rare-earth titanate melt structure and glass formation. <i>International Journal of Applied Glass Science</i> , 2019, 10, 463-478.	1.0	10
160	Fluid Structure of Molten LiCl-Li Solutions. <i>Journal of Physical Chemistry B</i> , 2019, 123, 10036-10043.	1.2	10
161	Nanometer-Scale Correlations in Aqueous Salt Solutions. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 2598-2604.	2.1	10
162	Quantum effects in the structure of liquid benzene at room temperature. <i>Molecular Physics</i> , 2001, 99, 787-794.	0.8	9

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163	In situ high-pressure X-ray diffraction study of densification of a molecular chalcogenide glass. <i>Journal of Physics and Chemistry of Solids</i> , 2008, 69, 2336-2340.	1.9	9
164	Comment on "Liquid-Liquid Phase Transition in Supercooled Yttria-Alumina". <i>Physical Review Letters</i> , 2011, 106, 119601; author reply 119602.	2.9	9
165	Energetics of hydroxylbastn�site solid solutions, La1�xNd CO3OH. <i>Geochimica Et Cosmochimica Acta</i> , 2022, 330, 47-66.	1.6	9
166	A neutron Brillouin scattering study of Mg70Zn30. <i>Journal of Physics Condensed Matter</i> , 1995, 7, 4775-4785.	0.7	8
167	Methane as a normalisation standard for gases in thermal neutron experiments. <i>Journal of Neutron Research</i> , 1998, 6, 279-285.	0.4	8
168	Longitudinal excitations in Mg70Zn30glass. <i>Journal of Physics Condensed Matter</i> , 1999, 11, 7079-7088.	0.7	8
169	Isotopic quantum effects in the structure of liquid methanol: I. Experiments with high-energy photon diffraction. <i>Journal of Physics Condensed Matter</i> , 2001, 13, 11405-11420.	0.7	8
170	High-energy X-ray diffraction of a hydrous silicate liquid under conditions of high pressure and temperature in a modified hydrothermal diamond anvil cell. <i>High Pressure Research</i> , 2014, 34, 100-109.	0.4	8
171	Using containerless methods to develop amorphous pharmaceuticals. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2017, 1861, 3686-3692.	1.1	8
172	The structure of liquid UO2 in reducing gas atmospheres. <i>Applied Physics Letters</i> , 2017, 110, .	1.5	8
173	Structure and Liquid Fragility in Sodium Carbonate. <i>Journal of Physical Chemistry A</i> , 2018, 122, 1071-1076.	1.1	8
174	Vanadium Oxidation States and Structural Role in Aluminoborosilicate Glasses: An Integrated Experimental and Molecular Dynamics Simulation Study. <i>Journal of Physical Chemistry B</i> , 2021, 125, 12365-12377.	1.2	8
175	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. <i>International Journal of Pharmaceutics</i> , 2022, 614, 121456.	2.6	8
176	Supercooling of aqueous solutions subjected to different thermal treatments. <i>Journal of Chemical Physics</i> , 1998, 108, 6558-6560.	1.2	7
177	Neutron diffraction study of long-range interactions in gaseous krypton. <i>Journal of Physics Condensed Matter</i> , 1999, 11, 3091-3104.	0.7	7
178	The Structure of Carbon Dioxide around Naphthalene Investigated using H/D Substitution in Neutron Diffraction. <i>Industrial & Engineering Chemistry Research</i> , 2000, 39, 4491-4495.	1.8	7
179	Structure of Nd-doped glasses measured by isotopic substitution in neutron diffraction. <i>Applied Physics Letters</i> , 2003, 83, 4954-4956.	1.5	7
180	Structural analysis of xCsCl(1�x)Ga2S3 glasses. <i>Journal of Non-Crystalline Solids</i> , 2008, 354, 134-137.	1.5	7

#	ARTICLE	IF	CITATIONS
181	Very strong hydrogen bonds in a bent chain structure of fluorohydrogenate anions in liquid Cs(FH) ₂ ·3F. <i>Journal of Chemical Physics</i> , 2008, 129, 014512.	1.2	7
182	Molten barium titanate: a high-pressure liquid silicate analogue. <i>Journal of Physics Condensed Matter</i> , 2019, 31, 20LT01.	0.7	7
183	Small- and Wide-Angle X-ray Scattering Studies of Liquid–Liquid Phase Separation in Silicate Melts. <i>ACS Earth and Space Chemistry</i> , 2020, 4, 1888-1894.	1.2	7
184	In Situ High-Temperature Synchrotron Diffraction Studies of (Fe,Cr,Al) ₃ O ₄ Spinel. <i>Inorganic Chemistry</i> , 2020, 59, 5949-5957.	1.9	7
185	Structure of crystalline and amorphous materials in the NASICON system Na _{1+x} Al _x Ge ₂ (PO ₄) ₃ . <i>Journal of Chemical Physics</i> , 2021, 155, 074501.	1.2	7
186	Long-Range Structures of Amorphous Solid Water. <i>Journal of Physical Chemistry B</i> , 2021, 125, 13320-13328.	1.2	7
187	A Combined Machine Learning and High-Energy X-ray Diffraction Approach to Understanding Liquid and Amorphous Metal Oxides. <i>Journal of the Physical Society of Japan</i> , 2022, 91, .	0.7	7
188	Scientific Review: Polyamorphism and Extreme Environments on GLAD. <i>Neutron News</i> , 2004, 15, 16-18.	0.1	6
189	Influence of molten status on nanoquasicrystalline-forming Zr-based metallic glasses. <i>Applied Physics Letters</i> , 2008, 93, .	1.5	6
190	Mercury Sulfide Dimorphism in Thioarsenate Glasses. <i>Journal of Physical Chemistry B</i> , 2016, 120, 5278-5290.	1.2	6
191	Network topology of deeply supercooled water. <i>Molecular Physics</i> , 2019, 117, 3217-3226.	0.8	6
192	Isotopic effects in the structure of liquid methanol: II. Experimental data in Fourier space. <i>Journal of Physics Condensed Matter</i> , 2001, 13, 11421-11434.	0.7	5
193	High-Pressure Research at the Advanced Photon Source. <i>Synchrotron Radiation News</i> , 2010, 23, 32-38.	0.2	5
194	Exploring the Structure of High Temperature, Iron-bearing Liquids. <i>Materials Today: Proceedings</i> , 2015, 2, S358-S363.	0.9	5
195	Structure of rare-earth chalcogenide glasses by neutron and x-ray diffraction. <i>Journal of Physics Condensed Matter</i> , 2017, 29, 225703.	0.7	5
196	A High Energy X-ray Diffraction Study of Amorphous Indomethacin. <i>Journal of Pharmaceutical Sciences</i> , 2022, 111, 818-824.	1.6	5
197	Containerless Techniques for in-situ X-Ray Measurements on Materials in Extreme Conditions. <i>Journal of the Physical Society of Japan</i> , 2022, 91, .	0.7	5
198	Structural Role of Water in a Sodium Phosphate Glass by Neutron Diffraction. <i>Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences</i> , 2004, 59, 879-887.	0.7	4

#	ARTICLE	IF	CITATIONS
199	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.	0.7	4
200	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.	0.7	4
201	Experimental and Theoretical Insights into the Structure of Tellurium Chloride Glasses. Inorganic Chemistry, 2018, 57, 2517-2528.	1.9	4
202	Ionic transport and atomic structure of AgI-HgS-GeS ₂ glasses. Pure and Applied Chemistry, 2019, 91, 1807-1820.	0.9	4
203	Hard x-ray methods for studying the structure of amorphous thin films and bulk glassy oxides. Journal of Physics Condensed Matter, 2021, 33, 194001.	0.7	4
204	Structures of glass-forming liquids by x-ray scattering: Glycerol, xylitol, and D-sorbitol. Journal of Chemical Physics, 2021, 155, 244508.	1.2	4
205	Octahedral oxide glass network in ambient pressure neodymium titanate. Scientific Reports, 2022, 12, 8258.	1.6	4
206	Isotopic quantum effects in the structure of liquid ethanol. Canadian Journal of Physics, 2002, 80, 1059-1068.	0.4	3
207	Comment on "Oxygen as a Site Specific Probe of the Structure of Water and Oxide Materials" Physical Review Letters, 2012, 108, 259603; discussion 259604.	2.9	3
208	Levitating water droplets formed by mist particles in an acoustic field. , 2014, , .		3
209	Consequences of sp ² -sp ³ boron isomerization in supercooled liquid borates. Applied Physics Letters, 2020, 117, 131901.	1.5	3
210	X-ray and neutron diffraction from glasses and liquids. , 2023, , 384-424.		3
211	Probing the Structure of Melts, Glasses, and Amorphous Materials. Elements, 2021, 17, 175-180.	0.5	3
212	Structures of glasses created by multiple kinetic arrests. Journal of Chemical Physics, 2022, 156, 084504.	1.2	3
213	Isotopic quantum correction to liquid methanol at -30 ± 1/2°C. Applied Physics A: Materials Science and Processing, 2002, 74, s1670-s1672.	1.1	2
214	Structure of oxychloride glasses by neutron and x-ray "difference" and x-ray photoelectron spectroscopy. Journal of Physics Condensed Matter, 2003, 15, 4679-4693.	0.7	2
215	On the structure of boron trifluoride in liquid and supercritical phase investigated with neutron diffraction. Journal of Chemical Physics, 2003, 119, 6671-6679.	1.2	2
216	Topological ordering in liquid UO ₂ . Journal of Physics Condensed Matter, 2016, 28, 015102.	0.7	2

#	ARTICLE	IF	CITATIONS
217	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.	0.5	2
218	Structure of ice confined in silica nanopores. Physical Chemistry Chemical Physics, 2021, 23, 12706-12717.	1.3	2
219	Advanced X-Ray Analytical Methods to Understand Structure, Properties, and Risk. AAPS Advances in the Pharmaceutical Sciences Series, 2015, , 263-283.	0.2	2
220	12. Structure of Glasses and Melts. , 2006, , 275-312.		1
221	Instrumentation for structure measurements on highly non-equilibrium materials. Diamond Light Source Proceedings, 2011, 1, .	0.1	1
222	In situ measurement of the structure of supercooled oxide liquids. Diamond Light Source Proceedings, 2011, 1, .	0.1	1
223	Note: Detector collimators for the nanoscale ordered materials diffractometer instrument at the Spallation Neutron Source. Review of Scientific Instruments, 2015, 86, 096105.	0.6	1
224	Unexpected role of metal halides in a chalcogenide glass network. Materials and Design, 2022, 216, 110547.	3.3	1
225	Molecular structure models of amorphous bismuth and cerium carboxylate catalyst precursors. Catalysis Today, 2022, 402, 350-357.	2.2	1
226	On the Structure of Liquid Hydrogen Fluoride.. ChemInform, 2004, 35, no.	0.1	0
227	Transitions in network and molecular glasses at high pressure.. , 2009, , .		0
228	Quantitative measurements of phase transitions in nano- and glassy materials. Journal of Physics: Conference Series, 2010, 215, 012021.	0.3	0
229	Zero-dimensional cryogenic glasses and supercooled liquids in the Se-Cl system. , 2013, , .		0
230	Recent developments in the structure of high temperature oxide melts. Acta Crystallographica Section A: Foundations and Advances, 2014, 70, C1332-C1332.	0.0	0
231	Laser heating of polycrystalline nuclear materials. AIP Conference Proceedings, 2019, , .	0.3	0
232	Structural relaxation between high-density and low-density amorphous ice: an X-ray and neutron diffraction study. Acta Crystallographica Section A: Foundations and Advances, 2002, 58, c53-c53.	0.3	0
233	Structure of permanently densified GeO ₂ glass. Acta Crystallographica Section A: Foundations and Advances, 2002, 58, c53-c53.	0.3	0
234	The structure of normal and supercritical boron trifluoride and related studies. Acta Crystallographica Section A: Foundations and Advances, 2002, 58, c53-c53.	0.3	0

#	ARTICLE	IF	CITATIONS
235	Scientific Review: Polyamorphism and Extreme Environments on GLAD. Neutron News, 2004, 15, 1-1.	0.1	0
236	Intermediate range chemical ordering in H ₂ O, Si and Ge under pressure. Acta Crystallographica Section A: Foundations and Advances, 2005, 61, c87-c87.	0.3	0