Peter H Poole

List of Publications by Year
in descending order

72 papers	9,888 citations	101384 36 h-index	98622 67 g-index
74 all docs	74 docs citations	74 times ranked	4139 citing authors

#	Article	IF	Citations
1	Phase behaviour of metastable water. Nature, 1992, 360, 324-328.	13.7	1,652
2	Dynamical Heterogeneities in a Supercooled Lennard-Jones Liquid. Physical Review Letters, 1997, 79, 2827-2830.	2.9	861
3	Stringlike Cooperative Motion in a Supercooled Liquid. Physical Review Letters, 1998, 80, 2338-2341.	2.9	846
4	Relation between the Widom line and the dynamic crossover in systems with a liquid-liquid phase transition. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 16558-16562.	3.3	693
5	Spatial correlations of mobility and immobility in a glass-forming Lennard-Jones liquid. Physical Review E, 1999, 60, 3107-3119.	0.8	455
6	Polymorphic Phase Transitions in Liquids and Glasses. Science, 1997, 275, 322-323.	6.0	427
7	Effect of Hydrogen Bonds on the Thermodynamic Behavior of Liquid Water. Physical Review Letters, 1994, 73, 1632-1635.	2.9	409
8	Fragile-to-strong transition and polyamorphism in the energy landscape of liquid silica. Nature, 2001, 412, 514-517.	13.7	356
9	Liquid-Liquid Phase Transition: Evidence from Simulations. Physical Review Letters, 1997, 78, 2409-2412.	2.9	270
10	Computer simulations of liquid silica: â€,Equation of state and liquidâ€“liquid phase transition. Physical Review E, 2000, 63, 011202.	0.8	219
11	Line of compressibility maxima in the phase diagram of supercooled water. Physical Review E, 1997, 55, 727-737.	0.8	203
12	Spinodal of liquid water. Physical Review E, 1993, 48, 3799-3817.	0.8	199
13	Phase diagram for amorphous solid water. Physical Review E, 1993, 48, 4605-4610.	0.8	181
14	Density minimum and liquidâ€“liquid phase transition. Journal of Physics Condensed Matter, 2005, 17, L431-L437.	0.7	181
15	Observation of the density minimum in deeply supercooled confined water. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 9570-9574.	3.3	178
16	Growing Spatial Correlations of Particle Displacements in a Simulated Liquid on Cooling toward the Glass Transition. Physical Review Letters, 1999, 82, 5064-5067.	2.9	160
17	Glass-forming liquids, anomalous liquids, and polyamorphism in liquids and biopolymers. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1994, 16, 993-1025.	0.4	158
18	Comparison of Thermodynamic Properties of Simulated Liquid Silica and Water. Physical Review Letters, 1997, 79, 2281-2284.	2.9	158

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19	Fractional Stokes-Einstein and Debye-Stokes-Einstein Relations in a Network-Forming Liquid. Physical Review Letters, 2006, 97, 055901.	2.9	158
20	Equation of state of supercooled water simulated using the extended simple point charge intermolecular potential. Journal of Chemical Physics, 1997, 107, 7443-7450.	1.2	152
21	Advances in Computational Studies of the Liquidâ€“Liquid Transition in Water and Water-Like Models. Chemical Reviews, 2018, 118, 9129-9151.	23.0	152
22	Experimental observation of the liquid-liquid transition in bulk supercooled water under pressure. Science, 2020, 370, 978-982.	6.0	143
23	Lifetime of the bond network and gel-like anomalies in supercooled water. Physical Review Letters, 1990, 64, 1686-1689.	2.9	141
24	Mixturelike Behavior Near a Liquid-Liquid Phase Transition in Simulations of Supercooled Water. Physical Review Letters, 2011, 106, 115706.	2.9	132
25	Free energy surface of ST2 water near the liquid-liquid phase transition. Journal of Chemical Physics, 2013, 138, 034505.	1.2	118
26	Study of the ST2 model of water close to the liquidâ€“liquid critical point. Physical Chemistry Chemical Physics, 2011, 13, 19759.	1.3	117
27	Free energy and configurational entropy of liquid silica: Fragile-to-strong crossover and polyamorphism. Physical Review E, 2004, 69, 041503.	0.8	110
28	Two-state thermodynamics of the ST2 model for supercooled water. Journal of Chemical Physics, 2014, 140, 104502.	1.2	96
29	Dynamical Behavior Near a Liquidâ€“Liquid Phase Transition in Simulations of Supercooled Water. Journal of Physical Chemistry B, 2011, 115, 14176-14183.	1.2	75
30	Phase diagram of silica from computer simulation. Physical Review E, 2004, 70, 061507.	0.8	73
31	Amorphous polymorphism. Computational Materials Science, 1995, 4, 373-382.	1.4	72
32	Structural and dynamical heterogeneity in a glass-forming liquid. Physical Review E, 2006, 74, 050502.	0.8	68
33	Universality classes of theÎ¸andÎ¸â€™points. Physical Review B, 1989, 39, 495-504.	1.1	51
34	Crystalline-amorphous transition in silicate perovskites. Physical Review B, 1995, 51, 14841-14848.	1.1	51
35	Spatial correlations of particle displacements in a glass-forming liquid. Physica A: Statistical Mechanics and Its Applications, 1998, 261, 51-59.	1.2	43
36	Advances in the study of supercooled water. European Physical Journal E, 2021, 44, 143.	0.7	40

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37	Test of classical nucleation theory on deeply supercooled high-pressure simulated silica. Journal of Chemical Physics, 2006, 124, 224709.	1.2	34
38	Dynamical heterogeneity in the Ising spin glass. Physical Review E, 1998, 57, 7350-7353.	0.8	31
39	Phase transitions in fluctuations and their role in two-step nucleation. Journal of Chemical Physics, 2019, 150, 074501.	1.2	30
40	Emergence of Fast Local Dynamics on Cooling toward the Ising Spin Glass Transition. Physical Review Letters, 1997, 78, 3394-3397.	2.9	29
41	Crystal Nucleation in a Supercooled Liquid with Glassy Dynamics. Physical Review Letters, 2009, 103, 225701.	2.9	28
42	Time-dependent thermodynamic properties of the Ising model from damage spreading. Journal of Statistical Physics, 1992, 68, 895-910.	0.5	27
43	Potential energy landscape of the apparent first-order phase transition between low-density and high-density amorphous ice. Journal of Chemical Physics, 2016, 145, 224501.	1.2	27
44	Phase diagram of the ST2 model of water. Molecular Physics, 2015, 113, 2791-2798.	0.8	25
45	Spatial correlation of the dynamic propensity of a glass-forming liquid. Journal of Physics Condensed Matter, 2011, 23, 235103.	0.7	22
46	Thermodynamic and structural anomalies of water nanodroplets. Nature Communications, 2018, 9, 2402.	5.8	19
47	The stability-limit conjecture revisited. Journal of Chemical Physics, 2019, 150, 234502.	1.2	18
48	Simulated silica. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2005, 363, 525-535.	1.6	15
49	Free energy of formation of small ice nuclei near the Widom line in simulations of supercooled water. European Physical Journal E, 2015, 38, 124.	0.7	15
50	Influence of sample preparation on the transformation of low-density to high-density amorphous ice: An explanation based on the potential energy landscape. Journal of Chemical Physics, 2017, 147, 044501.	1.2	15
51	Evaluating the Laplace pressure of water nanodroplets from simulations. Journal of Physics Condensed Matter, 2018, 30, 144005.	0.7	15
52	Surface tension of supercooled water nanodroplets from computer simulations. Journal of Chemical Physics, 2019, 150, 234507.	1.2	15
53	Fragile-to-strong crossover and polyamorphism in liquid silica: changes in liquid structure. Philosophical Magazine, 2004, 84, 1437-1445.	0.7	14
54	Heterogeneous nucleation in the low-barrier regime. Physical Review E, 2013, 87, 042407.	0.8	14

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55	State variables for glasses: The case of amorphous ice. Journal of Chemical Physics, 2019, 150, 224502.	1.2	14
56	Computer simulations of structure and transport in glasses and supercooled liquids. Current Opinion in Solid State and Materials Science, 1998, 3, 391-396.	5.6	13
57	Influence of mass polydispersity on dynamics of simple liquids and colloids. Physical Review E, 2001, 65, 011402.	0.8	9
58	Free energy surface of two-step nucleation. Journal of Chemical Physics, 2021, 154, 234507.	1.2	9
59	Limiting Tensions For Liquids and Glasses from Laboratory and MD Studies. , 2002, , 33-46.		9
60	â€œSwarm relaxationâ€• Equilibrating a large ensemble of computer simulationsâ‹†. European Physical Journal E, 2017, 40, 98.	0.7	7
61	Chapter 12. COMPUTER SIMULATIONS OF SILICATE MELTS. , 1995, , 563-616.		6
62	The potential energy landscape of the Â±JIsing spin glass. Journal of Physics Condensed Matter, 2000, 12, 6675-6682.	0.7	6
63	Spectral statistics of the quenched normal modes of a network-forming molecular liquid. Journal of Chemical Physics, 2009, 130, 124512.	1.2	5
64	Simulations of a lattice model of two-headed linear amphiphiles: Influence of amphiphile asymmetry. Journal of Chemical Physics, 2011, 134, 204503.	1.2	5
65	Liquidâ€“liquid phase transition in simulations of ultrafast heating and decompression of amorphous ice. Journal of Non-Crystalline Solids: X, 2021, 11-12, 100067.	0.5	4
66	Bulk motion of granular matter in an agitated cylindrical bed. Physical Review E, 2005, 71, 011303.	0.8	3
67	Learning science through guided discovery: liquid water and molecular networks. Physica A: Statistical Mechanics and Its Applications, 1991, 177, 281-293.	1.2	2
68	Spatially-Correlated Dynamics in Glass-Forming Systems: Correlation Functions and Simulations. Springer Proceedings in Physics, 1999, , 212-227.	0.1	1
69	Free energy surface of ST2 water near the liquid-liquid phase transition. , 0, .		1
70	Granular circulation in a cylindrical pan: Simulations of reversing radial and tangential flows. Physical Review E, 2007, 76, 021305.	0.8	0
71	Interrelationship of Polyamorphism and the Fragile-to-Strong Transition in Liquid Silica. , 2002, , 168-178.		0
72	Non-Monotonic Temperature Dependence of Local Dynamics and Local Energy upon Cooling toward the Ising Spin Glass Transition. Progress of Theoretical Physics Supplement, 1997, 126, 383-386.	0.2	0