Thomas B SchrÃ¸der

List of Publications by Year
in descending order

66 papers	5,766 citations	101543 36 h-index	102487 66 g-index
67 all docs	67 docs citations	67 times ranked	3429 citing authors

#	Article	IF	Citations
1	Isomorph Invariance of Higher-Order Structural Measures in Four Lennardâ€“Jones Systems. Molecules, 2021, 26, 1746.	3.8	4
2	Does mesoscopic elasticity control viscous slowing down in glassforming liquids?. Journal of Chemical Physics, 2021, 155, 074502.	3.0	9
3	Hidden Scale Invariance in Polydisperse Mixtures of Exponential Repulsive Particles. Journal of Physical Chemistry B, 2021, 125, 317-327.	2.6	3
4	The EXP pair-potential system. IV. Isotherms, isochores, and isomorphs in the two crystalline phases. Journal of Chemical Physics, 2020, 152, 094505.	3.0	7
5	Solid-like mean-square displacement in glass-forming liquids. Journal of Chemical Physics, 2020, 152, 141101.	3.0	30
6	Crystallization Instability in Glass-Forming Mixtures. Physical Review X, 2019, 9, .	8.9	22
7	The EXP pair-potential system. III. Thermodynamic phase diagram. Journal of Chemical Physics, 2019, 150, 174501.	3.0	9
8	Revisiting the Stokes-Einstein relation without a hydrodynamic diameter. Journal of Chemical Physics, 2019, 150, 021101.	3.0	69
9	Communication: Simple liquidsâ€™ high-density viscosity. Journal of Chemical Physics, 2018, 148, 081101.	3.0	25
10	Phase Diagram of Kob-Andersen-Type Binary Lennard-Jones Mixtures. Physical Review Letters, 2018, 120, 165501.	7.8	45
11	The EXP pair-potential system. I. Fluid phase isotherms, isochores, and quasiuniversality. Journal of Chemical Physics, 2018, 149, 114501.	3.0	17
12	The EXP pair-potential system. II. Fluid phase isomorphs. Journal of Chemical Physics, 2018, 149, 114502.	3.0	24
13	RUMD: A general purpose molecular dynamics package optimized to utilize GPU hardware down to a few thousand particles. SciPost Physics, 2017, 3, .	4.9	64
14	Communication: Pseudoisomorphs in liquids with intramolecular degrees of freedom. Journal of Chemical Physics, 2016, 145, 241103.	3.0	12
15	Communication: Studies of the Lennard-Jones fluid in 2, 3, and 4 dimensions highlight the need for a liquid-state 1/d expansion. Journal of Chemical Physics, 2016, 144, 231101.	3.0	24
16	Freezing and melting line invariants of the Lennard-Jones system. Physical Chemistry Chemical Physics, 2016, 18, 14678-14690.	2.8	39
17	Pair Potential That Reproduces the Shape of Isochrones in Molecular Liquids. Journal of Physical Chemistry B, 2016, 120, 7970-7974.	2.6	3
18	Thermodynamics of freezing and melting. Nature Communications, 2016, 7, 12386.	12.8	75

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19	Invariants in the Yukawa system's thermodynamic phase diagram. Physics of Plasmas, 2015, 22, .	1.9	40
20	Scaling of the dynamics of flexible Lennard-Jones chains: Effects of harmonic bonds. Journal of Chemical Physics, 2015, 143, 194503.	3.0	22
21	Simplicity of condensed matter at its core: Generic definition of a Roskilde-simple system. Journal of Chemical Physics, 2014, 141, 204502.	3.0	82
22	Scaling of the dynamics of flexible Lennard-Jones chains. Journal of Chemical Physics, 2014, 141, 054904.	3.0	43
23	Variation of the dynamic susceptibility along an isochrone. Physical Review E, 2014, 90, 042310.	2.1	9
24	Estimating the density-scaling exponent of a monatomic liquid from its pair potential. Journal of Chemical Physics, 2014, 140, 124510.	3.0	30
25	Explaining why simple liquids are quasi-universal. Nature Communications, 2014, 5, 5424.	12.8	56
26	Isomorph invariance of the structure and dynamics of classical crystals. Physical Review B, 2014, 90, .	3.2	33
27	Density-temperature scaling of the fragility in a model glass-former. European Physical Journal E, 2013, 36, 141.	1.6	12
28	Cooee bitumen: Chemical aging. Journal of Chemical Physics, 2013, 139, 124506.	3.0	42
29	Statistical mechanics of Roskilde liquids: Configurational adiabats, specific heat contours, and density dependence of the scaling exponent. Journal of Chemical Physics, 2013, 139, 184506.	3.0	31
30	Isomorph invariance of Couette shear flows simulated by the SLLOD equations of motion. Journal of Chemical Physics, 2013, 138, 154505.	3.0	30
31	Communication: The Rosenfeld-Tarazona expression for liquidsâ€™ specific heat: A numerical investigation of eighteen systems. Journal of Chemical Physics, 2013, 139, 171101.	3.0	31
32	Communication: Thermodynamics of condensed matter with strong pressure-energy correlations. Journal of Chemical Physics, 2012, 136, 061102.	3.0	70
33	What Is a Simple Liquid?. Physical Review X, 2012, 2, .	8.9	95
34	Isomorphs in Model Molecular Liquids. Journal of Physical Chemistry B, 2012, 116, 1018-1034.	2.6	59
35	Simplistic Coulomb Forces in Molecular Dynamics: Comparing the Wolf and Shifted-Force Approximations. Journal of Physical Chemistry B, 2012, 116, 5738-5743.	2.6	48
36	Predicting the density-scaling exponent of a glass-forming liquid from Prigogineâ€“Defay ratio measurements. Nature Physics, 2011, 7, 816-821.	16.7	122

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37	Pressure-energy correlations in liquids. V. Isomorphs in generalized Lennard-Jones systems. Journal of Chemical Physics, 2011, 134, 164505.	3.0	102
38	Strongly correlating liquids and their isomorphs. Journal of Non-Crystalline Solids, 2011, 357, 320-328.	3.1	37
39	NVU dynamics. I. Geodesic motion on the constant-potential-energy hypersurface. Journal of Chemical Physics, 2011, 135, 104101.	3.0	17
40	NVU dynamics. II. Comparing to four other dynamics. Journal of Chemical Physics, 2011, 135, 104102.	3.0	13
41	Predicting the Effective Temperature of a Glass. Physical Review Letters, 2010, 104, 125902.	7.8	43
42	Repulsive Reference Potential Reproducing the Dynamics of a Liquid with Attractions. Physical Review Letters, 2010, 105, 157801.	7.8	102
43	Correlated Volumeâ"Energy Fluctuations of Phospholipid Membranes: A Simulation Study. Journal of Physical Chemistry B, 2010, 114, 2124-2130.	2.6	15
44	Geometry of Slow Structural Fluctuations in a Supercooled Binary Alloy. Physical Review Letters, 2010, 104, 105701.	7.8	100
45	Stability of supercooled binary liquid mixtures. Journal of Chemical Physics, 2009, 130, 224501.	3.0	66
46	Pressure-energy correlations in liquids. III. Statistical mechanics and thermodynamics of liquids with hidden scale invariance. Journal of Chemical Physics, 2009, 131, 234503.	3.0	112
47	Hidden scale invariance in molecular van der Waals liquids: A simulation study. Physical Review E, 2009, 80, 041502.	2.1	84
48	Pressure-energy correlations in liquids. IV. â€œIsomorphsâ€•in liquid phase diagrams. Journal of Chemical Physics, 2009, 131, 234504.	3.0	297
49	Strong Pressure-Energy Correlations in van der Waals Liquids. Physical Review Letters, 2008, 100, 015701.	7.8	154
50	Pressure-energy correlations in liquids. II. Analysis and consequences. Journal of Chemical Physics, 2008, 129, 184508.	3.0	170
51	Pressure-energy correlations in liquids. I. Results from computer simulations. Journal of Chemical Physics, 2008, 129, 184507.	3.0	210
52	Glass-forming liquids: one or more â€˜orderâ€™ parameters?. Journal of Physics Condensed Matter, 2008, 20, 244113.	1.8	31
53	Feasibility of a single-parameter description of equilibrium viscous liquid dynamics. Physical Review E, 2008, 77, 011201.	2.1	46
54	ac Hopping Conduction at Extreme Disorder Takes Place on the Percolating Cluster. Physical Review Letters, 2008, 101, 025901.	7.8	79

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55	Single-order-parameter description of glass-forming liquids: A one-frequency test. Journal of Chemical Physics, 2007, 126, 074502.	3.0	36
56	An energy landscape model for glass-forming liquids in three dimensions. Journal of Non-Crystalline Solids, 2006, 352, 5210-5215.	3.1	2
57	Computer simulations of the random barrier model. Physical Chemistry Chemical Physics, 2002, 4, 3173-3178.	2.8	36
58	Molecular Dynamics Simulation of a Polymer Melt with a Nanoscopic Particle. Macromolecules, 2002, 35, 4481-4492.	4.8	464
59	Effects of a nanoscopic filler on the structure and dynamics of a simulated polymer melt and the relationship to ultrathin films. Physical Review E, 2001, 64, 021802.	2.1	247
60	Universality of ac conduction in disordered solids. Reviews of Modern Physics, 2000, 72, 873-892.	45.6	1,140
61	Scaling and Universality of ac Conduction in Disordered Solids. Physical Review Letters, 2000, 84, 310-313.	7.8	241
62	Crossover to potential energy landscape dominated dynamics in a model glass-forming liquid. Journal of Chemical Physics, 2000, 112, 9834-9840.	3.0	282
63	Time-dependent, four-point density correlation function description of dynamical heterogeneity and decoupling in supercooled liquids. Journal of Chemical Physics, 2000, 112, 509-512.	3.0	204
64	Potential energy landscape signatures of slow dynamics in glass forming liquids. Physica A: Statistical Mechanics and Its Applications, 1999, 270, 301-308.	2.6	50
65	Hopping in a supercooled binary Lennardâ€“Jones liquid. Journal of Non-Crystalline Solids, 1998, 235-237, 331-334.	3.1	26
66	Effective one-dimensionality of universal ac hopping conduction in the extreme disorder limit. Physical Review B, 1996, 54, 14884-14887.	3.2	24