Marvin Bishop

List of Publications by Year
in descending order

112 papers	1,755 citations	257101 24 h-index	344852 36 g-index
112 all docs	112 docs citations	112 times ranked	748 citing authors

#	Article	IF	Citations
1	Molecular dynamics of polymeric systems. Journal of Chemical Physics, 1979, 70, 1299-1304.	1.2	139
2	Investigations of static properties of model bulk polymer fluids. Journal of Chemical Physics, 1980, 72, 3228-3235.	1.2	70
3	Connection between the macroscopic electric and mechanical susceptibilities. Journal of Chemical Physics, 1974, 60, 3802-3811.	1.2	65
4	Error analysis in computer simulations. Journal of Chemical Physics, 1987, 87, 3675-3676.	1.2	58
5	Polymer shapes in two, four, and five dimensions. Journal of Chemical Physics, 1988, 88, 3976-3980.	1.2	56
6	Investigation of the end–to–end distance distribution function for random and self–avoiding walks in two and three dimensions. Journal of Chemical Physics, 1991, 94, 3936-3942.	1.2	49
7	The shape of ring polymers. Journal of Chemical Physics, 1985, 82, 1059-1061.	1.2	48
8	Application of the pivot algorithm for investigating the shapes of two–and three–dimensional lattice polymers. Journal of Chemical Physics, 1988, 88, 6594-6596.	1.2	46
9	Equation of state of hard and Weeks–Chandler–Anderson hyperspheres in four and five dimensions. Journal of Chemical Physics, 1999, 110, 11449-11453.	1.2	45
10	Investigations of model polymers: Dynamics of melts and statics of a long chain in a dilute melt of shorter chains. Journal of Chemical Physics, 1982, 76, 1557-1563.	1.2	43
11	The shapes of two–, four–, and five–dimensional linear and ring polymers. Journal of Chemical Physics, 1986, 85, 6728-6731.	1.2	39
12	Dimensions and intrinsic viscosities of long linear and star chains in good- and Î¸-solvent conditions. Macromolecules, 1991, 24, 6494-6499.	2.2	35
13	The shape of linear and star polymers with and without excluded volume. Journal of Chemical Physics, 1991, 94, 4009-4011.	1.2	35
14	Polymer shapes in three dimensions. Journal of Chemical Physics, 1986, 85, 5961-5962.	1.2	34
15	Brownian dynamics study of the shape of star and linear polymers in different regimes. Journal of Chemical Physics, 1989, 90, 6647-6651.	1.2	33
16	Depolarized light scattering from monatomic fluids. Journal of Chemical Physics, 1973, 58, 2696.	1.2	31
17	The equation of state of hard hyperspheres in four and five dimensions. Journal of Chemical Physics, 2005, 123, 014507.	1.2	31
18	Scaling in two–dimensional linear and ring polymers. Journal of Chemical Physics, 1986, 85, 1074-1076.	1.2	29

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19	Investigation of the end–to–end vector distribution function for linear polymers in different regimes. Journal of Chemical Physics, 1991, 95, 4589-4592.	1.2	28
20	Scaling in three–dimensional linear and ring polymers. Journal of Chemical Physics, 1986, 84, 444-446.	1.2	26
21	The structure of hyperspherical fluids in various dimensions. Journal of Chemical Physics, 2005, 122, 074508.	1.2	26
22	.THETA. State, Transition Curves, and Conformational Properties of Cyclic Chains. Macromolecules, 1995, 28, 2240-2246.	2.2	25
23	Investigations of static properties of two–dimensional bulk polymer systems. Journal of Chemical Physics, 1981, 75, 5538-5542.	1.2	24
24	System size dependence and time convergence in molecular dynamics simulations of monolayer films. Journal of Chemical Physics, 1991, 95, 540-543.	1.2	24
25	Radius of gyration and viscosity of linear and star polymers in different regimes. Macromolecules, 1992, 25, 1311-1315.	2.2	24
26	Characterization of the theta state and transition curves of off–lattice three dimensional chains. Journal of Chemical Physics, 1995, 102, 2277-2281.	1.2	24
27	Distribution of distances between different (end or inner) units in .THETA. and excluded-volume polymer chains. Macromolecules, 1993, 26, 4018-4022.	2.2	23
28	The shape of two–dimensional polymers. Journal of Chemical Physics, 1985, 83, 4791-4792.	1.2	21
29	The influence of attractions on the static and dynamic properties of simulated single and multichain systems. Journal of Chemical Physics, 1983, 79, 3500-3504.	1.2	20
30	The theta condition for linear polymer chains in continuous space and three dimensions. Journal of Chemical Physics, 1996, 105, 9666-9673.	1.2	20
31	The fluid to solid phase transition of hard hyperspheres in four and five dimensions. Journal of Chemical Physics, 2010, 132, 104509.	1.2	20
32	Molecular dynamics study of the thermodynamics and transport coefficients of hard hyperspheres in six and seven dimensions. Physical Review E, 2006, 74, 021201.	0.8	19
33	Molecular dynamics simulations of one-dimensional Lennard-Jones systems. Journal of Statistical Physics, 1981, 25, 229-235.	0.5	18
34	Monte Carlo Simulation of Hard Hyperspheres in Six, Seven and Eight Dimensions for Low to Moderate Densities. Journal of Statistical Physics, 2007, 126, 299-314.	0.5	18
35	Higher virial coefficients of four and five dimensional hard hyperspheres. Journal of Chemical Physics, 2004, 121, 6884-6886.	1.2	17
36	The equation of state of hard hyperspheres in nine dimensions for low to moderate densities. Journal of Chemical Physics, 2008, 128, 034506.	1.2	17

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37	Molecular dynamics of one‐dimensional hard rods. Journal of Chemical Physics, 1974, 60, 893-897.	1.2	16
38	Exact partition functions for some one‐dimensional models via the isobaric ensemble. American Journal of Physics, 1983, 51, 564-566.	0.3	15
39	Molecular dynamics study of the two‐dimensional Lennard‐Jones equation of state. Journal of Chemical Physics, 1984, 80, 5859-5860.	1.2	15
40	The shape of two‐dimensional linear and star polymers with and without excluded volume. Journal of Chemical Physics, 1991, 95, 608-611.	1.2	15
41	Computer study of the collective modes of a one dimensional disordered chain. Journal of Chemical Physics, 1973, 59, 5337-5341.	1.2	13
42	WCA perturbation theory for one‐dimensional Lennard–Jones fluids. American Journal of Physics, 1984, 52, 158-161.	0.3	13
43	Brownian dynamics study of surface adsorption of a linear polymer in different regimes. Journal of Chemical Physics, 1990, 93, 1455-1463.	1.2	13
44	The eighth virial coefficient of four- and five-dimensional hard hyperspheres. Journal of Chemical Physics, 2005, 122, 154502.	1.2	13
45	Scaling in multichain polymer systems in two and three dimensions. Journal of Chemical Physics, 1983, 79, 3496-3499.	1.2	12
46	The pair correlation function: A probe of molecular order. American Journal of Physics, 1984, 52, 1106-1108.	0.3	12
47	Collective modes of one-dimensional lennard-jones systems. Journal of Statistical Physics, 1982, 29, 623-629.	0.5	11
48	The collapse transition in three‐dimensional linear and ring polymers. Journal of Chemical Physics, 1986, 84, 447-448.	1.2	11
49	The WCA reference system for four‐and five‐dimensional Lennard‐Jones fluids. Journal of Chemical Physics, 1988, 88, 5779-5780.	1.2	11
50	The distribution function of the radius of gyration of linear polymers in two and three dimensions. Journal of Chemical Physics, 1991, 95, 606-607.	1.2	11
51	The shapes of H-comb polymers. Journal of Chemical Physics, 2009, 131, 116101.	1.2	11
52	Onset of Brownian Motion in a One‐Dimensional Fluid. Journal of Chemical Physics, 1972, 56, 2850-2852.	1.2	10
53	The long time behavior of the velocity autocorrelation function of a one‐dimensional Lennard‐Jones fluid. Journal of Chemical Physics, 1981, 75, 4741-4741.	1.2	10
54	Structure factor for hard hyperspheres in higher dimensions. Journal of Chemical Physics, 2007, 126, 224505.	1.2	10

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55	The shapes of simple three and four junction comb polymers. Journal of Chemical Physics, 2015, 142, 024901.	1.2	10
56	Tunnel model of liquid diffusion. Journal of Chemical Physics, 1974, 60, 295-296.	1.2	9
57	Perturbation theory of one–dimensional triangle–and square–well fluids. Journal of Chemical Physics, 1986, 85, 3992-3994.	1.2	9
58	Brownian dynamics simulation of linear and star polymers. Journal of Chemical Physics, 1991, 95, 3804-3807.	1.2	9
59	Brownian dynamics simulation of uniform comb polymers in three dimensions. Journal of Chemical Physics, 1993, 98, 1611-1612.	1.2	9
60	Theta state and collapse of off–lattice chains in two dimensions. Journal of Chemical Physics, 1994, 100, 7754-7758.	1.2	9
61	Comparison between the convergence of perturbation expansions in one–dimensional square and triangle–well fluids. Journal of Chemical Physics, 1983, 79, 1092-1093.	1.2	8
62	The WCA reference system for two–dimensional Lennard–Jones fluids. Journal of Chemical Physics, 1986, 84, 535-536.	1.2	8
63	Universal properties of linear and ring polymers. Journal of Chemical Physics, 1988, 89, 1159-1162.	1.2	8
64	Computer simulation study of the validity of scaling and renormalization group theories for two–dimensional star polymers. Journal of Chemical Physics, 1993, 98, 3452-3456.	1.2	8
65	Form Factor of an Isolated Chain with Excluded Volume. Macromolecular Theory and Simulations, 2002, 11, 11-15.	0.6	8
66	The influence of the attractive part of the Lennard-Jones potential on the viscosity. Chemical Physics Letters, 1983, 94, 209-212.	1.2	7
67	Virial coefficients for one–dimensional hard rods. American Journal of Physics, 1983, 51, 1151-1152.	0.3	7
68	The short-time behavior of the velocity autocorrelation function of smooth, hard hyperspheres in three, four and five dimensions. Physics Letters, Section A: General, Atomic and Solid State Physics, 1985, 111, 169-170.	0.9	7
69	Brownian dynamics study of the end–to–end distribution function of two–dimensional linear chains in different regimes. Journal of Chemical Physics, 1989, 91, 6345-6347.	1.2	7
70	Structure function of linear polymers in the ideal and excluded volume regime. Journal of Chemical Physics, 1991, 94, 6920-6923.	1.2	7
71	Long time tails in two-dimensional Lennard-Jones systems. Chemical Physics Letters, 1982, 88, 208-212.	1.2	6
72	Brownian dynamics study of the relaxation behavior of linear and ring polymers. Journal of Chemical Physics, 1988, 88, 1326-1327.	1.2	6

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73	Brownian dynamics study of the end–to–end distribution function of star and linear polymers in different regimes. Journal of Chemical Physics, 1989, 91, 3721-3723.	1.2	6
74	Brownian dynamics simulation of uniform comb polymers in two dimensions. Journal of Chemical Physics, 1992, 97, 1471-1472.	1.2	6
75	Radius of gyration of uniform H–comb polymers in two and three dimensions. Journal of Chemical Physics, 1993, 99, 9170-9171.	1.2	6
76	Distribution of Distances between Units in Two-Dimensional Excluded-Volume Chains. Macromolecules, 1994, 27, 3483-3486.	2.2	6
77	Shapes of Two-Dimensional Excluded Volume Continuum Star Polymers. Macromolecules, 2009, 42, 3627-3631.	2.2	6
78	Excluded volume effects in the end-to-end distance of two-generation dendritic polymers: TTT and HH combs. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 185002.	0.7	6
79	Form Factor of Simple Three and Four Junction Comb Polymers. Macromolecules, 2013, 46, 2468-2473.	2.2	6
80	Molecular dynamics of nonergodic hard parallel squares with a Maxwellian velocity distribution. Physical Review A, 1980, 22, 740-744.	1.0	5
81	The influence of the well width on the convergence of perturbation theory for one–dimensional square–well fluids. Journal of Chemical Physics, 1983, 79, 528-529.	1.2	4
82	The collapse transition for two–dimensional linear and ring polymers. Journal of Chemical Physics, 1988, 89, 1719-1724.	1.2	4
83	Structure function of linear and star polymers in the small wave vector regime. Journal of Chemical Physics, 1995, 102, 5094-5099.	1.2	4
84	The behavior of the structure function at large wavevectors for polymers in different regimes. Macromolecular Theory and Simulations, 2000, 9, 550-554.	0.6	4
85	Monte Carlo study of four dimensional binary hard hypersphere mixtures. Journal of Chemical Physics, 2012, 136, 014506.	1.2	4
86	Phase transitions in four-dimensional binary hard hypersphere mixtures. Journal of Chemical Physics, 2013, 138, 084502.	1.2	4
87	Molecular dynamics study of six-dimensional hard hypersphere crystals. Journal of Chemical Physics, 2021, 155, 144502.	1.2	4
88	Brownian dynamics study of the two–dimensional linear polymer collapse transition. Journal of Chemical Physics, 1989, 90, 1212-1213.	1.2	3
89	A kinetic theory derivation of the second and third virial coefficients of rigid rods, disks, and spheres. American Journal of Physics, 1989, 57, 469-471.	0.3	3
90	Polymer dynamics movies generated by program spacefil. Computers & Chemistry, 1989, 13, 59-60.	1.2	3

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91	End–to–End Distances in Four–Junction Polymers. Macromolecular Theory and Simulations, 2011, 20, 806-813.	0.6	3
92	Five dimensional binary hard hypersphere mixtures: A Monte Carlo study. Journal of Chemical Physics, 2016, 145, 154502.	1.2	3
93	Monte Carlo studies of self-replicating macromolecules. Journal of Chemical Physics, 1977, 67, 1082.	1.2	2
94	A geometrical derivation of the second and third virial coefficients of rigid rods, disks, and spheres. American Journal of Physics, 1983, 51, 653-654.	0.3	2
95	The ultracomputer as a vehicle for polymer simulations. Parallel Computing, 1984, 1, 165-174.	1.3	2
96	Applications of computer graphics in the study of polymer configurations. Journal of Chemical Education, 1986, 63, 800.	1.1	2
97	Further modifications to program spacefil to produce three-dimensional color molecular graphics. Computers & Chemistry, 1987, 11, 301-303.	1.2	2
98	The two dimensional shapes of simple three and four junction ideal comb polymers. Physica A: Statistical Mechanics and Its Applications, 2016, 458, 391-398.	1.2	2
99	The shapes of ideal five junction comb polymers in two and three dimensions. Physica A: Statistical Mechanics and Its Applications, 2017, 484, 57-65.	1.2	2
100	The shapes of ideal dendrimers in two and three dimensions. Physica A: Statistical Mechanics and Its Applications, 2019, 516, 50-57.	1.2	2
101	Small WebComputing Applied to Distributed Monte Carlo Calculations. Lecture Notes in Computer Science, 2006, , 608-615.	1.0	2
102	Computer-assisted data analysis of enzyme kinetics. Journal of Chemical Education, 1981, 58, 242.	1.1	1
103	The behavior of the form factor in two dimensions for linear polymers in different regimes. Journal of Chemical Physics, 2004, 120, 1627-1631.	1.2	1
104	Monte Carlo computer investigations of higher generation ideal dendrimers. Condensed Matter Physics, 2021, 24, 23301.	0.3	1
105	Collective properties of polyatomic gases in a magnetic field: Effects on light scattering spectrum. Journal of Statistical Physics, 1973, 7, 311-328.	0.5	0
106	Computer assisted instruction in qualitative analysis. Journal of Chemical Education, 1977, 54, 689.	1.1	0
107	Computer-assisted instruction in stereochemical configuration analysis. Journal of Chemical Education, 1979, 56, 318.	1.1	0
108	Comment on ''Reexamination of scaling relations of athermal multichain lattice systems by computer experiments''. Journal of Chemical Physics, 1984, 81, 3751-3752.	1.2	0

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109	The dispersion relation of the dynamic structure factor of one-dimensional Lennard-Jones fluids. Physics Letters, Section A: General, Atomic and Solid State Physics, 1986, 115, 219-220.	0.9	0
110	Investigation of sorting algorithms on a variety of computers. Computers in Physics, 1990, 4, 179.	0.6	0
111	The form factor of H-comb polymers. Journal of Chemical Physics, 2009, 131, 236101.	1.2	0
112	Fluid-solid demixing in four and five dimensional asymmetric binary hard hypersphere mixtures. Journal of Chemical Physics, 2019, 150, 154506.	1.2	0