Dusan Bratko

List of Publications by Year in descending order

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130 papers	4,542 citations	76294 40 h-index	123376 61 g-index
135 all docs	135 docs citations	135 times ranked	2611 citing authors

#	Article	IF	Citations
1	Pressure-sensitive conversions between Cassie and Wenzel wetting states on a nanocorrugated surface. Applied Physics A: Materials Science and Processing, 2022, 128, 1.	1.1	3
2	Reversible electrowetting transitions on superhydrophobic surfaces. Physical Chemistry Chemical Physics, 2021, 23, 27005-27013.	1.3	8
3	High-Pressure Infiltrationâ€“Expulsion of Aqueous NaCl in Planar Hydrophobic Nanopores. Journal of Physical Chemistry C, 2020, 124, 23433-23445.	1.5	3
4	Solventâ€“Solvent Correlations across Graphene: The Effect of Image Charges. ACS Nano, 2020, 14, 7987-7998.	7.3	25
5	Modulation of structure and dynamics of water under alternating electric field and the role of hydrogen bonding. Molecular Physics, 2019, 117, 3282-3296.	0.8	14
6	Molecular polarizability in open ensemble simulations of aqueous nanoconfinements under electric field. Journal of Chemical Physics, 2019, 150, 164702.	1.2	11
7	Anisotropic structure and dynamics of water under static electric fields. Journal of Chemical Physics, 2019, 150, 074505.	1.2	34
8	Multifaceted Water Dynamics in Spherical Nanocages. Journal of Physical Chemistry C, 2019, 123, 5989-5998.	1.5	5
9	Curvature dependence of the effect of ionic functionalization on the attraction among nanoparticles in dispersion. Journal of Chemical Physics, 2018, 148, 222815.	1.2	8
10	Extent of Surface Force Additivity on Chemically Heterogeneous Substrates at Varied Orientations. Journal of Physical Chemistry B, 2018, 122, 3596-3603.	1.2	0
11	Electrokinetic flow of an aqueous electrolyte in amorphous silica nanotubes. Physical Chemistry Chemical Physics, 2018, 20, 27838-27848.	1.3	18
12	Dynamical insights into the mechanism of a droplet detachment from a fiber. Soft Matter, 2018, 14, 8924-8934.	1.2	24
13	Metastable Vapor in a Janus Nanoconfinement. Journal of Physical Chemistry C, 2017, 121, 13144-13150.	1.5	4
14	Universal Repulsive Contribution to the Solvent-Induced Interaction Between Sizable, Curved Hydrophobes. Journal of Physical Chemistry Letters, 2016, 7, 3158-3163.	2.1	8
15	Dynamic Response in Nanoelectrowetting on a Dielectric. ACS Nano, 2016, 10, 8536-8544.	7.3	29
16	Electrolyte pore/solution partitioning by expanded grand canonical ensemble Monte Carlo simulation. Journal of Chemical Physics, 2015, 142, 124705.	1.2	19
17	Salt and Water Uptake in Nanoconfinement under Applied Electric Field: An Open Ensemble Monte Carlo Study. Journal of Physical Chemistry C, 2015, 119, 20416-20425.	1.5	14
18	Dynamic Control of Nanopore Wetting in Water and Saline Solutions under an Electric Field. Journal of Physical Chemistry B, 2015, 119, 8890-8899.	1.2	26

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19	Wetting transparency of graphene in water. Journal of Chemical Physics, 2014, 141, 18C517.	1.2	58
20	Nanoconfined water under electric field at constant chemical potential undergoes electrostriction. Journal of Chemical Physics, 2014, 140, 074710.	1.2	26
21	Dynamics at a Janus Interface. Journal of Physical Chemistry C, 2013, 117, 4561-4567.	1.5	20
22	Wettability of pristine and alkyl-functionalized graphane. Journal of Chemical Physics, 2012, 137, 034707.	1.2	50
23	Metastable Sessile Nanodroplets on Nanopatterned Surfaces. Journal of Physical Chemistry C, 2012, 116, 8634-8641.	1.5	46
24	Tunable Wetting of Surfaces with Ionic Functionalities. Journal of Physical Chemistry C, 2012, 116, 15467-15473.	1.5	14
25	Computational probe of cavitation events in protein systems. Physical Chemistry Chemical Physics, 2011, 13, 19902.	1.3	9
26	Nanoscale Wetting Under Electric Field from Molecular Simulations. Topics in Current Chemistry, 2011, 307, 155-179.	4.0	27
27	Electric Control of Wetting by Salty Nanodrops: Molecular Dynamics Simulations. Journal of Physical Chemistry C, 2011, 115, 22393-22399.	1.5	59
28	Length-Scale Dependence of Hydration Free Energy: Effect of Solute Charge. Journal of Statistical Physics, 2011, 145, 253-264.	0.5	7
29	Probing surface tension additivity on chemically heterogeneous surfaces by a molecular approach. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 6374-6379.	3.3	74
30	The influence of molecular-scale roughness on the surface spreading of an aqueous nanodrop. Faraday Discussions, 2010, 146, 67.	1.6	76
31	Water-mediated ordering of nanoparticles in an electric field. Faraday Discussions, 2009, 141, 55-66.	1.6	54
32	Microscopic Dynamics of the Orientation of a Hydrated Nanoparticle in an Electric Field. Physical Review Letters, 2009, 103, 207801.	2.9	32
33	Specific ion effects: Interaction between nanoparticles in electrolyte solutions. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2008, 319, 98-102.	2.3	18
34	Field-exposed water in a nanopore: liquid or vapour?. Physical Chemistry Chemical Physics, 2008, 10, 6807.	1.3	44
35	Attractive Surface Force in the Presence of Dissolved Gas:â€‰ A Molecular Approach. Langmuir, 2008, 24, 1247-1253.	1.6	56
36	Effect of Field Direction on Electrowetting in a Nanopore. Journal of the American Chemical Society, 2007, 129, 2504-2510.	6.6	175

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37	Electrowetting at the Nanoscale. Journal of Physical Chemistry C, 2007, 111, 505-509.	1.5	137
38	Molecular simulation of protein aggregation. Biotechnology and Bioengineering, 2007, 96, 1-8.	1.7	24
39	Protein aggregation in silico. Trends in Biotechnology, 2007, 25, 254-261.	4.9	62
40	Effect of Single-Point Sequence Alterations on the Aggregation Propensity of a Model Protein. Journal of the American Chemical Society, 2006, 128, 1683-1691.	6.6	16
41	Ion Specific Interactions Between Pairs of Nanometer Sized Particles in Aqueous Solutions. , 2006, , 74-77.		1
42	The competition between protein folding and aggregation: Off-lattice minimalist model studies. Biotechnology and Bioengineering, 2005, 89, 78-87.	1.7	27
43	Thermodynamics of folding and association of lattice-model proteins. Journal of Chemical Physics, 2005, 122, 174908.	1.2	14
44	Protein-folding landscapes in multichain systems. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 11692-11697.	3.3	46
45	Gas Solubility in Hydrophobic Confinement. Journal of Physical Chemistry B, 2005, 109, 22545-22552.	1.2	70
46	Specific Ion Effects in Solutions of Globular Proteins:Â Comparison between Analytical Models and Simulation. Journal of Physical Chemistry B, 2005, 109, 24489-24494.	1.2	52
47	Electrostatic interactions of charged dipolar proteins in reverse micelles. Journal of Chemical Physics, 2004, 120, 11941-11947.	1.2	7
48	Phase behavior of aqueous solutions containing dipolar proteins from second-order perturbation theory. Journal of Chemical Physics, 2004, 120, 9859-9869.	1.2	33
49	The role of saltâ€“macroion van der Waals interactions in the colloidâ€“colloid potential of mean force. Current Opinion in Colloid and Interface Science, 2004, 9, 81-86.	3.4	27
50	Effect of alcohols on aqueous lysozymeâ€“lysozyme interactions from static light-scattering measurements. Biophysical Chemistry, 2004, 107, 289-298.	1.5	76
51	Ion-Specific Effects in the Colloidâ^'Colloid or Proteinâ^'Protein Potential of Mean Force:Â Role of Saltâ^'Macroion van der Waals Interactions. Journal of Physical Chemistry B, 2004, 108, 9228-9235.	1.2	142
52	Electrostatic Interactions between Peptides and the Molecular Chaperone DnaK. Journal of Physical Chemistry B, 2003, 107, 11563-11569.	1.2	10
53	Dynamics of Capillary Drying in Water. Physical Review Letters, 2003, 90, 065502.	2.9	140
54	Analytic calculation of phase diagrams for charged dipolar colloids with orientation-averaged pair potentials. Physical Chemistry Chemical Physics, 2003, 5, 4851.	1.3	15

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55	Effect of secondary structure on protein aggregation: A replica exchange simulation study. Journal of Chemical Physics, 2003, 118, 5185-5194.	1.2	29
56	Orientation-Averaged Pair Potentials between Dipolar Proteins or Colloids. Journal of Physical Chemistry B, 2002, 106, 2714-2720.	1.2	45
57	Forces between aqueous nonuniformly charged colloids from molecular simulation. Journal of Chemical Physics, 2002, 116, 7733-7743.	1.2	50
58	Pair-wise additivity for potentials of mean force in dilute polymer solutions. Polymer, 2002, 43, 591-597.	1.8	3
59	Molecular thermodynamics and bioprocessing: from intracellular events to bioseparations. Fluid Phase Equilibria, 2002, 194-197, 31-41.	1.4	15
60	Influence of polymer structure upon active-ingredient loading: a Monte Carlo simulation study for design of drug-delivery devices. Fluid Phase Equilibria, 2001, 183-184, 341-350.	1.4	6
61	Interaction between hydrophobic surfaces with metastable intervening liquid. Journal of Chemical Physics, 2001, 115, 3873-3877.	1.2	114
62	Competition between protein folding and aggregation: A three-dimensional lattice-model simulation. Journal of Chemical Physics, 2001, 114, 561.	1.2	47
63	Interaction between oppositely charged micelles or globular proteins. Physical Review E, 2000, 62, 5273-5280.	0.8	41
64	Effect of three-body forces on the phase behavior of charged colloids. Journal of Chemical Physics, 2000, 113, 3360-3365.	1.2	44
65	Multivalent ionâ€“DNA interaction: Neutron scattering estimates of polyamine distribution. Journal of Chemical Physics, 1999, 111, 10706-10716.	1.2	43
66	Monte Carlo simulation for the potential of mean force between ionic colloids in solutions of asymmetric salts. Journal of Chemical Physics, 1999, 111, 7084-7094.	1.2	133
67	Adsorption of random copolymers on disordered surfaces. Computational and Theoretical Polymer Science, 1998, 8, 113-126.	1.1	34
68	Interaction between like-charged colloidal spheres in electrolyte solutions. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 15169-15172.	3.3	154
69	A simple theory and Monte Carlo simulations for recognition between random heteropolymers and disordered surfaces. Journal of Chemical Physics, 1998, 108, 1676-1682.	1.2	46
70	Random heteropolymer adsorption on disordered multifunctional surfaces: Effect of specific intersegment interactions. Journal of Chemical Physics, 1998, 109, 6415-6419.	1.2	20
71	Polyelectrolyte solutions containing mixed valency ions in the cell model: A simulation and modified Poissonâ€“Boltzmann study. Journal of Chemical Physics, 1997, 107, 9197-9207.	1.2	72
72	The structure of a random heteropolymer in a disordered medium: Ensemble growth simulation. Journal of Chemical Physics, 1997, 106, 1264-1279.	1.2	32

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73	Recognition between random heteropolymers and multifunctional disordered surfaces. Chemical Physics Letters, 1997, 280, 46-52.	1.2	49
74	Ionâ€“ion correlations in quenched disordered media. Journal of Chemical Physics, 1996, 104, 7700-7712.	1.2	35
75	A Numerical Study of Polyampholyte Configurationâ€. The Journal of Physical Chemistry, 1996, 100, 1164-1173.	2.9	35
76	Frozen Phases of Random Heteropolymers in Disordered Media. Physical Review Letters, 1996, 76, 1844-1847.	2.9	38
77	Modified Poisson-Boltzmann Theory Applied to Linear Polyelectrolyte Solutions. The Journal of Physical Chemistry, 1995, 99, 410-418.	2.9	67
78	Polyelectrolyte configuration in a disordered medium. Physical Review E, 1995, 51, 5805-5817.	0.8	17
79	Towards an analytical model of water: The octupolar model. Journal of Chemical Physics, 1995, 102, 1461-1462.	1.2	30
80	Osmotic interactions between neutral surfaces in an electrolyte solution. Physical Review E, 1994, 49, 4140-4144.	0.8	15
81	Structure of confined adhesive fluids: A Monte Carlo study. Physical Review E, 1994, 50, 1151-1161.	0.8	37
82	Diffusion of ionic penetrants in charged disordered media. Journal of Chemical Physics, 1994, 100, 1528-1541.	1.2	41
83	A mean field theory for the swelling of a gaussian polyion. Macromolecular Theory and Simulations, 1994, 3, 79-90.	0.6	3
84	Structure of Baxter's adhesive fluid in a planar gap. Chemical Physics Letters, 1993, 203, 465-471.	1.2	28
85	A mean field approach to the structure of polyelectrolytes. Journal of Chemical Physics, 1993, 99, 5352-5361.	1.2	43
86	A Perturbative Approach to Polyelectrolyte Configuration. ACS Symposium Series, 1993, , 34-44.	0.5	0
87	Elasticity of a Self-Avoiding Polymer. , 1993, , 507-515.		0
88	Structure and thermodynamics of micellar solutions in the modified Poissonâ€”Boltzmann theory. Chemical Physics Letters, 1992, 193, 203-210.	1.2	25
89	Electrolyte surface tension in the modified Poisson-Boltzmann approximation. The Journal of Physical Chemistry, 1991, 95, 336-340.	2.9	46
90	Counterion binding in the solvation shell of ionic colloids in aqueous solution. Electrochimica Acta, 1991, 36, 1761-1765.	2.6	11

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91	Effect of temperature on electrical transport and ion binding in poly(styrenesulphonate) solutions. European Polymer Journal, 1991, 27, 1195-1200.	2.6	12
92	Limiting law for ion adsorption in narrow planar pores. Physical Review A, 1991, 44, 8235-8241.	1.0	18
93	Liophobic interaction in Baxterâ€™s adhesive fluid. Journal of Chemical Physics, 1991, 94, 8210-8215.	1.2	51
94	The structure of a model ionic melt in a planar slit. Journal of Chemical Physics, 1991, 94, 586-589.	1.2	8
95	Charge fluctuation in reverse micelles. Journal of Chemical Physics, 1991, 95, 5318-5326.	1.2	38
96	A Molecular Model for Aqueous Solutions. , 1991, , 185-196.		0
97	Spatial correlations in aqueous protein solutions. Chemical Physics Letters, 1990, 167, 239-245.	1.2	11
98	Hypernetted chain approximation for ion distribution in reverse micelles. Chemical Physics Letters, 1990, 169, 555-560.	1.2	19
99	A general solution of the molecular Ornsteinâ€“Zernike equation for spheres with anisotropic adhesion and electric multipoles. Journal of Chemical Physics, 1990, 92, 3741-3747.	1.2	30
100	Electric double layer interactions in reverse micellar systems: A Monte Carlo simulation study. Journal of Chemical Physics, 1990, 92, 642-648.	1.2	33
101	Structure of hard sphere fluids in narrow cylindrical pores. Journal of Chemical Physics, 1989, 90, 2752-2757.	1.2	35
102	The influence of the ionic strength on enzyme solubilization in water-in-oil microemulsions. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1988, 254, 291-296.	0.3	0
103	The influence of the ionic strength on enzyme solubilization in water-in-oil microemulsions. Bioelectrochemistry, 1988, 20, 291-296.	1.0	17
104	Electrostatic model for protein/reverse micelle complexation. Journal of Chemical Physics, 1988, 89, 545-550.	1.2	62
105	Analysis of intermicellar structure factors with the mean spherical and hypernetted-chain approximations. Physical Review A, 1987, 35, 4359-4363.	1.0	20
106	Monte Carlo simulation of hydrophobic interaction. Journal of Chemical Physics, 1987, 86, 2955-2959.	1.2	102
107	A Model of Ion Hydration. , 1987, , 27-31.		2
108	Temperature dependence of the electrolytic conductivity of poly(styrene sulfonate) solutions. Macromolecules, 1986, 19, 2083-2085.	2.2	10

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109	Thermodynamic consistency of the modified Poisson-Boltzmann equation in the electric double layer. The Journal of Physical Chemistry, 1986, 90, 6248-6251.	2.9	7
110	Electrical double layer interactions with image charges. Chemical Physics Letters, 1986, 128, 449-454.	1.2	135
111	Interpretation of the intermicellar structure factors in the hypernetted-chain Percus-Yevick approximation. Physical Review A, 1986, 34, 2215-2219.	1.0	34
112	An integral equation approach to structure and dynamics of ionic colloidal solutions. Journal of Chemical Physics, 1986, 85, 377-384.	1.2	68
113	An application of the modified Poisson- Boltzmann equation in studies of osmotic properties of micellar solutions. Colloid and Polymer Science, 1985, 263, 417-419.	1.0	17
114	Monte Carlo studies of polyelectrolyte solutions. Effect of polyelectrolyte charge density. Chemical Physics Letters, 1985, 115, 294-298.	1.2	32
115	Counterion self diffusion in polystyrenesulfonate solutions. Die Makromolekulare Chemie Rapid Communications, 1985, 6, 163-168.	1.1	10
116	A simple model for the intermolecular potential of water. Journal of Chemical Physics, 1985, 83, 6367-6370.	1.2	58
117	On counterion self-diffusion in micellar solutions. The Journal of Physical Chemistry, 1985, 89, 1437-1440.	2.9	24
118	Interpretation of Counterion Spin Relaxation in Polyelectrolyte Solutions. II. Effects of Finite Polyion Length. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1985, 89, 1254-1260.	0.9	13
119	640â€”Thermal motion of counterions in micellar solutions. Bioelectrochemistry, 1984, 13, 459-471.	1.0	10
120	Ellipsoidal model of polyelectrolyte solutions. Journal of Chemical Physics, 1984, 80, 5782-5789.	1.2	33
121	Electrical transport in polystyrenesulfonate solutions. Polymer Bulletin, 1983, 9, 33-39.	1.7	21
122	Electrical transport in poly(styrenesulfonate) solutions with divalent counterions. Die Makromolekulare Chemie Rapid Communications, 1983, 4, 697-701.	1.1	11
123	Conductivity of polyelectrolyte solutions containing mono-and divalent counterions. Die Makromolekulare Chemie Rapid Communications, 1983, 4, 783-788.	1.1	13
124	Comment on â€œexact statistical mechanical relations for the cell model of polyelectrolyte solutionsâ€• Chemical Physics Letters, 1983, 96, 263-265.	1.2	9
125	Enthalpies of dilution of salt-containing polyelectrolyte solutions. The Journal of Physical Chemistry, 1982, 86, 2469-2471.	2.9	11
126	Distribution of counterions in the double layer around a cylindrical polyion. Chemical Physics Letters, 1982, 90, 434-438.	1.2	97

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127	An alternative approach to the osmotic coefficient of polyelectrolyte solutions. Journal of Chemical Physics, 1981, 75, 4612-4614.	1.2	8
128	Determination of the reduced viscosity of dilute aqueous Polyelectrolyte Solutions. Die Makromolekulare Chemie Rapid Communications, 1980, 1, 269-273.	1.1	4
129	Generalized osmotic pressure equation for polyelectrolyte solutions. Die Makromolekulare Chemie Rapid Communications, 1980, 1, 663-666.	1.1	4
130	Title is missing!. Die Makromolekulare Chemie, 1977, 178, 1773-1778.	1.1	5