Frank Van Swol

List of Publications by Year
in descending order

79 papers	5,114 citations	94269 37 h-index	85405 71 g-index
79 all docs	79 docs citations	79 times ranked	3896 citing authors

#	Article	IF	Citations
1	Electric Double Layers with Surface Charge Regulation Using Density Functional Theory. Entropy, 2020, 22, 132.	1.1	9
2	Thermodynamic properties of model CdTe/CdSe mixtures. Molecular Simulation, 2016, 42, 14-24.	0.9	2
3	Solvent Role in the Formation of Electric Double Layers with Surface Charge Regulation: A Bystander or a Key Participant?. Physical Review Letters, 2016, 116, 048301.	2.9	15
4	Charge regulation at semiconductor-electrolyte interfaces. Journal of Colloid and Interface Science, 2015, 449, 409-415.	5.0	8
5	Tuning structure and mobility of solvation shells surrounding tracer additives. Journal of Chemical Physics, 2015, 142, 124501.	1.2	6
6	Statistical mechanics of two-dimensional shuffled foams: Geometry-topology correlation in small or large disorder limits. Physical Review E, 2014, 89, 062309.	0.8	14
7	Note: Position-dependent and pair diffusivity profiles from steady-state solutions of color reaction-counterdiffusion problems. Journal of Chemical Physics, 2014, 141, 046101.	1.2	11
8	The effect of surface charge regulation on conductivity in fluidic nanochannels. Journal of Colloid and Interface Science, 2014, 416, 105-111.	5.0	9
9	Manipulating Semiconductor Colloidal Stability Through Doping. Physical Review Letters, 2014, 113, 158302.	2.9	10
10	Charge Effects on the Structure and Composition of Porphyrin Binary Ionic Solids: ZnTPPS/SnTMePyP Nanomaterials. Chemistry of Materials, 2013, 25, 441-447.	3.2	22
11	Binary ionic porphyrin nanosheets: electronic and light-harvesting properties regulated by crystal structure. Nanoscale, 2012, 4, 1695.	2.8	49
12	A thermodynamic perspective of the metastability of holey sheets: the role of curvature. Physical Chemistry Chemical Physics, 2012, 14, 13309.	1.3	1
13	Hierarchical cooperative binary ionic porphyrin nanocomposites. Chemical Communications, 2012, 48, 4863.	2.2	30
14	Templated growth of platinum nanowheels using the inhomogeneous reaction environment of bicelles. Physical Chemistry Chemical Physics, 2011, 13, 4846-4852.	1.3	37
15	Evolution of dendritic nanosheets into durable holey sheets: a lattice gas simulation study. Journal of Porphyrins and Phthalocyanines, 2011, 15, 449-458.	0.4	4
16	Numerical Simulation of Ethanolâ^'Waterâ^'NaCl Droplet Evaporation. Industrial & Engineering Chemistry Research, 2010, 49, 5631-5643.	1.8	20
17	Evolution of Dendritic Platinum Nanosheets into Ripening-Resistant Holey Sheets. Nano Letters, 2009, 9, 1534-1539.	4.5	37
18	Light-driven synthesis of hollow platinum nanospheres. Chemical Communications, 2008, , 2535.	2.2	20

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19	Synthesis of Platinum Nanowheels Using a Bicellar Template. Journal of the American Chemical Society, 2008, 130, 12602-12603.	6.6	92
20	Shear Flow on Super-Hydrophobic Surfaces. AIP Conference Proceedings, 2008, , .	0.3	0
21	Studies of a Lattice Model of Water Confined in a Slit Pore. Journal of Physical Chemistry C, 2007, 111, 15976-15981.	1.5	13
22	Drying transition of confined water. Nature, 2006, 442, 526-526.	13.7	123
23	Molecular simulations of lubrication and solvation forces. Physical Review E, 2006, 73, 016306.	0.8	14
24	New directions in mechanics. Mechanics of Materials, 2005, 37, 231-259.	1.7	118
25	Structure of random bidisperse foam. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2005, 263, 11-17.	2.3	31
26	Investigating the Interface of Superhydrophobic Surfaces in Contact with Water. Langmuir, 2005, 21, 7805-7811.	1.6	65
27	Structure of Random Foam. Physical Review Letters, 2004, 93, 208301.	2.9	153
28	Synthesis of peptide-nanotube platinum-nanoparticle composites. Chemical Communications, 2004, , 1044-1045.	2.2	208
29	Controlled Synthesis of 2-D and 3-D Dendritic Platinum Nanostructures. Journal of the American Chemical Society, 2004, 126, 635-645.	6.6	381
30	In-Situ X-ray Scattering Study of Continuous Silicaâ"Surfactant Self-Assembly during Steady-State Dip Coating. Journal of Physical Chemistry B, 2003, 107, 7683-7688.	1.2	48
31	Functional Nanocomposites Prepared by Self-Assembly and Polymerization of Diacetylene Surfactants and Silicic Acid. Journal of the American Chemical Society, 2003, 125, 1269-1277.	6.6	135
32	Structure of random monodisperse foam. Physical Review E, 2003, 67, 031403.	0.8	176
33	Lattice density functional theory investigation of pore shape effects. I. Adsorption in single nonperiodic pores. Physical Review E, 2002, 66, 041602.	0.8	17
34	Lattice density functional theory investigation of pore shape effects. II. Adsorption in collections of noninterconnected pores. Physical Review E, 2002, 66, 041603.	0.8	18
35	Monte Carlo Simulation of Amphiphile Self-Assembly during Dip Coating. Materials Research Society Symposia Proceedings, 2000, 636, 121.	0.1	15
36	A common theoretical basis for surface forces apparatus, osmotic stress, and beam bending measurements of surface forces. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2000, 162, 25-36.	2.3	10

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37	Density functional theory of simple polymers in a slit pore. III. Surface tension. Journal of Chemical Physics, 2000, 113, 2021-2024.	1.2	30
38	Stress Isotherms of Porous Thin Materials:Â Theoretical Predictions from a Nonlocal Density Functional Theory. Langmuir, 1999, 15, 3296-3301.	1.6	14
39	Direct Measurement of Solvation Forces in Complex Microporous Media:Â A New Characterization Tool. Langmuir, 1998, 14, 2602-2605.	1.6	21
40	Swelling of colloidal systems. Journal of Chemical Physics, 1998, 108, 4675-4682.	1.2	5
41	Solvation forces between rough surfaces. Journal of Chemical Physics, 1998, 108, 5588-5598.	1.2	74
42	A molecular theory for surface forces adhesion measurements. Journal of Chemical Physics, 1997, 106, 3782-3791.	1.2	25
43	Revisiting Experimental tests of the Laplace-Kelvin Equation. Materials Research Society Symposia Proceedings, 1996, 464, 159.	0.1	0
44	Oscillatory surface forces: A test of the superposition approximation. Journal of Chemical Physics, 1996, 105, 2884-2890.	1.2	15
45	Gradient-Driven Diffusion Using Dual Control Volume Grand Canonical Molecular Dynamics (DCV-GCMD). Materials Research Society Symposia Proceedings, 1995, 408, 299.	0.1	5
46	Simulation of surfactant solutions. Molecular Physics, 1994, 82, 1009-1031.	0.8	50
47	Solvation forces and colloidal stability: A combined Monte Carlo and density functional theory approach. Journal of Chemical Physics, 1994, 100, 9106-9116.	1.2	30
48	Diffusion in Lennardâ€Jones fluids using dual control volume grand canonical molecular dynamics simulation (DCVâ€GCMD). Journal of Chemical Physics, 1994, 100, 7548-7552.	1.2	298
49	Molecular dynamics and Monte Carlo simulations in the grand canonical ensemble: Local versus global control. Journal of Chemical Physics, 1993, 98, 4897-4908.	1.2	82
50	On the role of solvation forces in colloidal phase transitions. Langmuir, 1993, 9, 1442-1445.	1.6	14
51	A molecular dynamics study of prefreezing. Molecular Physics, 1993, 80, 861-875.	0.8	45
52	Wetting state of a crystal-fluid system of hard spheres. Physical Review Letters, 1992, 69, 2078-2081.	2.9	62
53	Poreâ€end effects on adsorption hysteresis in cylindrical and slitlike pores. Journal of Chemical Physics, 1992, 97, 6942-6952.	1.2	77
54	The small shear rate response of electrorheological suspensions. II. Extension beyond the pointâ€“dipole limit. Journal of Chemical Physics, 1991, 94, 6170-6178.	1.2	196

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55	Wetting of a Smooth Substrate by Crystal. Materials Research Society Symposia Proceedings, 1991, 237, 73.	0.1	0
56	The small shear rate response of electrorheological suspensions. I. Simulation in the pointâ€“dipole limit. Journal of Chemical Physics, 1991, 94, 6160-6169.	1.2	224
57	Ultrathin films under shear. Journal of Chemical Physics, 1991, 95, 1995-1998.	1.2	98
58	Wetting and drying transitions at a fluid-wall interface. Density-functional theory versus computer simulation. II. Physical Review A, 1991, 43, 2932-2942.	1.0	76
59	Location of the isotropic-nematic transition in the Gay-Berne model. Molecular Physics, 1991, 72, 593-605.	0.8	131
60	Structure effects and phase equilibria of Lennard-Jones mixtures in a cylindrical pore.. Molecular Physics, 1991, 72, 1081-1097.	0.8	19
61	Computer simulation of fluids interacting with fluctuating walls. Journal of Chemical Physics, 1990, 93, 737-745.	1.2	70
62	Layering transitions in cylindrical pores. Journal of Chemical Physics, 1990, 93, 679-685.	1.2	71
63	Dynamic simulation of electrorheological suspensions. Journal of Chemical Physics, 1989, 91, 7888-7895.	1.2	268
64	Hardâ€sphere mixtures near a hard wall. Journal of Chemical Physics, 1989, 90, 3704-3712.	1.2	86
65	Lennard-Jones Mixtures in a Cylindrical Pore. A Comparison of Simulation and Density Functional Theory. Molecular Simulation, 1989, 2, 393-411.	0.9	53
66	Wetting and drying transitions at a fluid-wall interface: Density-functional theory versus computer simulation. Physical Review A, 1989, 40, 2567-2578.	1.0	92
67	Lennardâ€Jones fluids in cylindrical pores: Nonlocal theory and computer simulation. Journal of Chemical Physics, 1988, 88, 6487-6500.	1.2	224
68	Comment on "Molecular-Dynamics Simulation of Wetting and Drying at Solid-Fluid Interfaces". Physical Review Letters, 1988, 60, 239-239.	2.9	12
69	Adsorption hysteresis in narrow pores. Journal of Chemical Physics, 1988, 89, 5202-5205.	1.2	88
70	Grand potential densities of wallâ€“liquid interfaces approaching complete drying. Journal of Chemical Physics, 1988, 89, 5010-5014.	1.2	30
71	Perturbation theory of a model hcp solid. Molecular Physics, 1988, 65, 161-173.	0.8	18
72	Liquid-vapour coexistence in a cylindrical pore. Molecular Physics, 1987, 61, 1381-1390.	0.8	95

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73	Percolation Transition in the Parallel Hard-cube Model Fluid. Molecular Simulation, 1987, 1, 95-108.	0.9	17
74	Lennard-Jones mixtures in cylindrical pores. Molecular Physics, 1987, 62, 1213-1224.	0.8	39
75	Wetting at a fluidâ€“wall interface. Computer simulation and exact statistical sum rules. Journal of the Chemical Society, Faraday Transactions 2, 1986, 82, 1685-1699.	1.1	46
76	On the approach to complete wetting by gas at a liquid-wall interface. Molecular Physics, 1985, 56, 1313-1356.	0.8	72
77	Complete Wetting in a System with Short-Range Forces. Physical Review Letters, 1984, 53, 1376-1378.	2.9	23
78	On the interface between a fluid and a planar wall. Molecular Physics, 1984, 51, 991-1010.	0.8	235
79	The electrostatic potential and field in the surface region of lamina and semiâ€infinite point charge lattices. Journal of Chemical Physics, 1981, 75, 5051-5058.	1.2	63