Yu Kalyuzhnyi

List of Publications by Year in descending order

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		172457	254184
119	2,566	29	43
papers	citations	h-index	g-index

124	124	124	807
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Liquidâ€“gas critical point of a two-dimensional system of hard ellipses with attractive wells. Journal of Chemical Physics, 2022, 156, 034102.	3.0	2
2	Empty liquid state and re-entrant phase behavior of the patchy colloids confined in porous media. Journal of Chemical Physics, 2022, 156, 161102.	3.0	4
3	Integral equation theory for mixtures of spherical and patchy colloids. 2. Numerical results. Soft Matter, 2021, 17, 3513-3519.	2.7	5
4	Liquid-vapor phase equilibrium of a simple liquid confined in a random porous media: Second-order Barker-Henderson perturbation theory and scaled particle theory. Journal of Molecular Liquids, 2020, 300, 112348.	4.9	7
5	Aggregation, liquidâ€“liquid phase separation, and percolation behaviour of a model antibody fluid constrained by hard-sphere obstacles. Soft Matter, 2020, 16, 8432-8443.	2.7	9
6	Integral equation theory for a mixture of spherical and patchy colloids: analytical description. Soft Matter, 2020, 16, 3456-3465.	2.7	8
7	Thermodynamic perturbation theory for a valence-limited model of colloidal systems. Molecular Physics, 2019, 117, 3695-3702.	1.7	1
8	Analytic results for the three- and four-particle correlation functions of the fluid of hard disks. Journal of Chemical Physics, 2019, 150, 034502.	3.0	1
9	Phase Equilibria of Polydisperse Square-Well Chain Fluid Confined in Random Porous Media: TPT of Wertheim and Scaled Particle Theory. Journal of Physical Chemistry B, 2018, 122, 5458-5465.	2.6	6
10	Primitive models of room temperature ionic liquids. Liquid-gas phaseÂcoexistence. Journal of Molecular Liquids, 2018, 270, 7-13.	4.9	6
11	Controlling the viscosities of antibody solutions through control of their binding sites. Journal of Molecular Liquids, 2018, 270, 234-242.	4.9	39
12	Modeling the depletion effect caused by an addition of polymer to monoclonal antibody solutions. Journal of Physics Condensed Matter, 2018, 30, 485101.	1.8	3
13	Two- and three-phase equilibria of polydisperse Yukawa hard-sphere fluids confined in random porous media: high temperature approximation and scaled particle theory. Soft Matter, 2017, 13, 1405-1412.	2.7	7
14	Melting upon cooling and freezing upon heating: fluidâ€“solid phase diagram for Åvejkâ€“HaÅ¡ek model of dimerizing hard spheres. Soft Matter, 2017, 13, 1156-1160.	2.7	4
15	Second-order thermodynamic perturbation theory for the inverse patchy colloids. Journal of Molecular Liquids, 2017, 228, 143-149.	4.9	3
16	Shielded attractive shell model of polymerizing hard spheres of different size. Resummed thermodynamic perturbation theory and computer simulation. Journal of Molecular Liquids, 2017, 228, 133-142.	4.9	3
17	Shielded attractive shell model again: resummed thermodynamic perturbation theory for central force potential. Journal of Physics Condensed Matter, 2016, 28, 414011.	1.8	6
18	Explicit-water theory for the salt-specific effects and Hofmeister series in protein solutions. Journal of Chemical Physics, 2016, 144, 215101.	3.0	21

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19	Modeling phase transitions in mixtures of Î²â€“Î³ lens crystallins. Soft Matter, 2016, 12, 7289-7298.	2.7	28
20	Two- and three-phase equilibria in polydisperse Yukawa hard-sphere mixture. High temperature and mean spherical approximations. Condensed Matter Physics, 2016, 19, 23603.	0.7	2
21	Fluid of fused spheres as a model for protein solution. Condensed Matter Physics, 2016, 19, 23801.	0.7	7
22	Inverse patchy colloids with small patches: fluid structure and dynamical slowing down. Journal of Physics Condensed Matter, 2015, 27, 234104.	1.8	14
23	Theoretical and numerical investigations of inverse patchy colloids in the fluid phase. Journal of Chemical Physics, 2015, 142, 114108.	3.0	20
24	Protein aggregation in salt solutions. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 6766-6770.	7.1	102
25	Inverse patchy colloids with two and three patches. Analytical and numerical study. Journal of Chemical Physics, 2015, 143, 044904.	3.0	9
26	Second-order Barker-Henderson perturbation theory for the phase behavior of polydisperse Morse hard-sphere mixture. Condensed Matter Physics, 2015, 18, 13605.	0.7	3
27	Phase Behavior and Percolation Properties of the Patchy Colloidal Fluids in the Random Porous Media. Journal of Physical Chemistry Letters, 2014, 5, 4260-4264.	4.6	23
28	Model for a mixture of macroions, counterions, and co-ions in a waterlike fluid. Physical Review E, 2014, 90, 012308.	2.1	6
29	Re-entrant Phase Behavior in Confined Two-Patch Colloidal Particles. Journal of Physical Chemistry B, 2014, 118, 9076-9084.	2.6	15
30	Second-order resummed thermodynamic perturbation theory for central-force associating potential: Multi-patch colloidal models. Journal of Chemical Physics, 2013, 139, 044909.	3.0	19
31	Two-patch colloidal model with re-entrant phase behaviour. Journal of Chemical Physics, 2013, 139, 104905.	3.0	24
32	Closed-loop liquid-liquid immiscibility in mixture of particles with spherically symmetric interaction. Condensed Matter Physics, 2013, 16, 43606.	0.7	2
33	An improved thermodynamic perturbation theory for square-well m-point model of the patchy colloids. Journal of Chemical Physics, 2012, 137, 244910.	3.0	8
34	Liquid-gas phase behavior of polydisperse dipolar hard-sphere fluid: Extended thermodynamic perturbation theory for central force associating potential. Condensed Matter Physics, 2012, 15, 23605.	0.7	2
35	Resummed thermodynamic perturbation theory for central force associating potential. Multi-patch models. Journal of Chemical Physics, 2011, 135, 014501.	3.0	30
36	Network Forming Fluids: Yukawa Square-Well m-Point Model. Journal of Statistical Physics, 2011, 145, 481-506.	1.2	14

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37	Phase behavior of a simple model of ferrocolloidal fluid. Chemical Physics Letters, 2011, 503, 226-230.	2.6	0
38	Resummed thermodynamic perturbation theory for central force associating potential: One-patch model. Journal of Chemical Physics, 2010, 133, 044502.	3.0	34
39	Aqueous alkali halide solutions: can osmotic coefficients be explained on the basis of the ionic sizes alone?. Physical Chemistry Chemical Physics, 2010, 12, 6260.	2.8	30
40	Phase coexistence in the hard-sphere Yukawa chain fluid with chain length polydispersity: Dimer thermodynamic perturbation theory. Journal of Chemical Physics, 2008, 129, 224901.	3.0	5
41	Phase coexistence in polydisperse athermal polymer-colloidal mixture. Journal of Chemical Physics, 2008, 128, 154907.	3.0	8
42	Solvation phenomena in dilute multicomponent solutions I. Formal results and molecular outlook. Journal of Chemical Physics, 2008, 128, 214512.	3.0	9
43	Liquid-vapour coexistence in the dipolar Yukawa hard-sphere fluid. Europhysics Letters, 2008, 84, 26001.	2.0	17
44	Computer simulations and theoretical aspects of the depletion interaction in protein-oligomer mixtures. Journal of Chemical Physics, 2007, 127, 035103.	3.0	6
45	An improved thermodynamic perturbation theory for Mercedes-Benz water. Journal of Chemical Physics, 2007, 127, 174511.	3.0	35
46	Theory for the solvation of nonpolar solutes in water. Journal of Chemical Physics, 2007, 127, 174505.	3.0	32
47	Thermodynamic properties and liquid-gas phase diagram of the dipolar hard-sphere fluid. Europhysics Letters, 2007, 80, 56002.	2.0	26
48	Integral Equation Study of Particle Confinement Effects in a Polymer/Particle Mixtureâ€. Journal of Physical Chemistry C, 2007, 111, 15625-15633.	3.1	2
49	Modeling solution of flexible polyelectrolyte in explicit solvent. Chemical Physics Letters, 2007, 438, 238-243.	2.6	16
50	Phase coexistence in polydisperse mixture of hard-sphere colloidal and flexible chain particles. Chemical Physics Letters, 2007, 443, 243-247.	2.6	7
51	Phase coexistence in the hard-sphere Yukawa chain fluid with chain length polydispersity: High temperature approximation. Chemical Physics Letters, 2007, 446, 285-291.	2.6	3
52	Liquid-gas phase behavior of Stockmayer fluid with high dipolar moment. Condensed Matter Physics, 2007, 10, 553.	0.7	14
53	Phase coexistence in polydisperse multi-Yukawa hard-sphere fluid: High temperature approximation. Journal of Chemical Physics, 2006, 125, 034501.	3.0	7
54	Solution of the mean spherical approximation for polydisperse multi-Yukawa hard-sphere fluid mixture using orthogonal polynomial expansions. Journal of Chemical Physics, 2006, 124, 114509.	3.0	2

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55	Theoretical aspects and computer simulations of flexible charged oligomers in salt-free solutions. Journal of Chemical Physics, 2006, 125, 214907.	3.0	9
56	Analysis of osmotic pressure data for aqueous protein solutions via a multicomponent model. Journal of Chemical Physics, 2006, 124, 114902.	3.0	9
57	Phase coexistence in a polydisperse charged hard-sphere fluid: Polymer mean spherical approximation. Journal of Chemical Physics, 2005, 123, 124501.	3.0	8
58	Towards the phase diagram of a polydisperse mixture of charged hard spheres. Europhysics Letters, 2005, 72, 96-102.	2.0	5
59	Structure of a sheared soft-disk fluid from a nonequilibrium potential. Physical Review E, 2004, 70, 061204.	2.1	4
60	Short-range interactions: from simple ions to polyelectrolyte solutions. Current Opinion in Colloid and Interface Science, 2004, 9, 128-132.	7.4	14
61	Equation of state and liquid-vapor equilibria of one- and two-Yukawa hard-sphere chain fluids: Theory and simulation. Journal of Chemical Physics, 2004, 121, 8128.	3.0	17
62	Phase coexistence in polydisperse charged hard-sphere fluids: Mean spherical approximation. Journal of Chemical Physics, 2004, 120, 10133-10145.	3.0	12
63	Phase coexistence in polydisperse liquid mixtures: Beyond the van der Waals approximation. Journal of Chemical Physics, 2003, 119, 7335-7343.	3.0	18
64	Yukawa sticky m-point model of associating fluid. Journal of Chemical Physics, 2003, 118, 6437-6445.	3.0	20
65	Orientation-dependent integral equation theory for a two-dimensional model of water. Journal of Chemical Physics, 2003, 118, 5516-5525.	3.0	61
66	A two-dimensional model of water: Solvation of nonpolar solutes. Journal of Chemical Physics, 2002, 116, 723-729.	3.0	64
67	Structural and thermodynamic properties of a multicomponent freely jointed hard sphere multi-Yukawa chain fluid. Molecular Physics, 2002, 100, 2499-2517.	1.7	13
68	Thermodynamic properties of freely-jointed hard-sphere multi-Yukawa chain fluids: theory and simulation. Fluid Phase Equilibria, 2002, 194-197, 185-196.	2.5	10
69	Multicomponent mixture of charged hard-sphere chain molecules in the polymer mean-spherical approximation. Journal of Chemical Physics, 2001, 115, 540-551.	3.0	29
70	Structural and thermodynamic properties of a freely-jointed Yukawa hard-sphere chain fluid. Journal of Molecular Liquids, 2001, 92, 85-96.	4.9	8
71	Structure of a 3-component polyelectrolyte solution model with dimerizing counterions and coions. Journal of Molecular Liquids, 2001, 92, 97-103.	4.9	2
72	Structure and bridge functions of fused-sphere dimeric fluids. Chemical Physics Letters, 2001, 339, 89-95.	2.6	10

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73	Structures of fused-dimer fluids: A new closure based on the potential distribution theorems. Journal of Chemical Physics, 2001, 114, 8484-8491.	3.0	9
74	Applications of Integral Equation Calculations to High-Temperature Solvation Phenomena. Journal of Statistical Physics, 2000, 100, 167-199.	1.2	12
75	Highly Asymmetric Electrolytes in the Associative Mean-Spherical Approximation. Journal of Statistical Physics, 2000, 100, 243-265.	1.2	32
76	Distribution functions of a simple fluid under shear. II. High shear rates. Physical Review E, 2000, 63, 011209.	2.1	5
77	A two-dimensional model of water: Theory and computer simulations. Journal of Chemical Physics, 2000, 112, 2843-2848.	3.0	71
78	Structural and thermodynamic properties of freely-jointed hard-sphere rings and chains. Journal of Chemical Physics, 2000, 112, 3071-3081.	3.0	17
79	Solution of the associative mean spherical approximation for a multicomponent dimerizing hard-sphere multi-Yukawa fluid. Journal of Chemical Physics, 2000, 113, 1135-1142.	3.0	15
80	Distribution functions of a simple fluid under shear: Low shear rates. Physical Review E, 1999, 60, 1716-1723.	2.1	9
81	Equations of state of freely jointed hard-sphere chain fluids: Numerical results. Journal of Chemical Physics, 1999, 110, 5458-5468.	3.0	23
82	Equations of state of freely jointed hard-sphere chain fluids: Theory. Journal of Chemical Physics, 1999, 110, 5444-5457.	3.0	25
83	Chandler-Silbey-Ladanyi integral equation theory for semiflexible molecules. Molecular Physics, 1999, 96, 1289-1294.	1.7	4
84	Solvation effect on kinetic rate constant of reactions in supercritical solvents. AICHE Journal, 1998, 44, 667-680.	3.6	42
85	Primitive models of chemical association. III. Totally flexible sticky two-point model for multicomponent heteronuclear fixed-chain-length polymerization. Journal of Chemical Physics, 1998, 108, 6513-6524.	3.0	24
86	Thermodynamics of the associative mean spherical approximation for the fluid of dimerizing particles. Journal of Chemical Physics, 1998, 108, 3709-3715.	3.0	21
87	Primitive models of chemical association. IV. Polymer Percusâ€“Yevick ideal-chain approximation for heteronuclear hard-sphere chain fluids. Journal of Chemical Physics, 1998, 108, 6525-6534.	3.0	38
88	Study of a model polyelectrolyte solution with directional attractive forces between the macroions. Journal of Chemical Physics, 1998, 108, 7870-7875.	3.0	12
89	Thermodynamics of the polymer mean-spherical ideal chain approximation for a fluid of linear chain molecules. Molecular Physics, 1998, 94, 735-742.	1.7	23
90	Primitive models of chemical association. II. Polymerization into flexible chain molecules of prescribed length. Journal of Chemical Physics, 1997, 106, 1940-1949.	3.0	36

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91	Structure and Thermodynamics of Micellar Solutions in Isotropic and Cell Models. Langmuir, 1997, 13, 3646-3651.	3.5	18
92	Primitive model for highly asymmetric electrolytes. Associative mean spherical approximation. Physica A: Statistical Mechanics and Its Applications, 1997, 236, 85-96.	2.6	21
93	Analytical treatment of the fused hard-sphere chain model. 0.5 < L < 1. Physica A: Statistical Mechanics and Its Applications, 1997, 245, 393-410.	2.6	4
94	Dilute solutions of highly asymmetrical electrolytes in the primitive model approximation. Journal of Molecular Liquids, 1997, 73-74, 277-289.	4.9	16
95	Ion-ion correlations in highly asymmetrical electrolytes. Molecular Physics, 1996, 87, 1317-1331.	1.7	36
96	Phase diagram for the Lennard-Jones fluid modelled by the hard-core Yukawa fluid. Molecular Physics, 1996, 87, 1459-1462.	1.7	22
97	Solvation thermodynamics of gas solubility at sub- and near-critical conditions. AICHE Journal, 1996, 42, 571-584.	3.6	34
98	Solution of the associative mean spherical approximation for the shielded sticky point electrolyte model. Journal of Chemical Physics, 1996, 104, 1081-1089.	3.0	17
99	On the relation between the Wertheimâ€™s twoâ€density integral equation theory for associating fluids and Chandlerâ€“Silbeyâ€“Ladanyi integral equation theory for siteâ€“site molecular fluids. Journal of Chemical Physics, 1996, 104, 3325-3328.	3.0	28
100	Solution of the Chandlerâ€“Silbeyâ€“Ladanyi equation for the multicomponent hardâ€sphere siteâ€“site molecular fluid: Percusâ€“Yevick approximation. Journal of Chemical Physics, 1996, 105, 2011-2019.	3.0	16
101	Phase diagram for the dimerizing hard-core Yukawa fluid. Molecular Physics, 1996, 87, 249-255.	1.7	6
102	Sticky charged spheres in the mean-spherical approximation: a model for colloids and polyelectrolytes. Journal of Physics Condensed Matter, 1996, 8, A143-A167.	1.8	33
103	Analytical solution of the multidensity OZ equation for polymerizing fluid. Chemical Physics Letters, 1995, 235, 355-364.	2.6	19
104	Solution of the polymer MSA for the polymerizing primitive model of electrolytes. Chemical Physics Letters, 1995, 240, 157-164.	2.6	35
105	Density profiles of one-component shielded sticky point fluid near a hard wall. Chemical Physics Letters, 1995, 242, 297-303.	2.6	10
106	Solution of the polymer Percusâ€“Yevick approximation for the multicomponent totally flexible sticky twoâ€point model of polymerizing fluid. Journal of Chemical Physics, 1995, 103, 3265-3267.	3.0	33
107	Multidensity integral equation theory for highly asymmetric electrolyte solutions. Journal of Chemical Physics, 1995, 102, 5770-5780.	3.0	69
108	Primitive models of chemical association. I. Theory and simulation for dimerization. Journal of Chemical Physics, 1994, 101, 7939-7952.	3.0	79

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109	Integral equation theory for highly asymmetric electrolyte solutions. Chemical Physics Letters, 1993, 215, 518-522.	2.6	44
110	Solution of the associative Percusâ€"Yevick approximation for the n-component mixture of dimerizing hard spheres. Chemical Physics Letters, 1993, 215, 1-4.	2.6	31
111	An analytical study of the effects of association in a 2-2 electrolyte solution. Molecular Physics, 1993, 80, 1165-1176.	1.7	58
112	On the effects of association in fluids with spherically symmetric interactions. Molecular Physics, 1993, 78, 1247-1258.	1.7	96
113	Analytical solution of Wertheim's OZ equation for the Smith-Nezbeda model of associated liquids. Molecular Physics, 1991, 73, 703-713.	1.7	39
114	Computer simulation of a model 2â€"2 electrolyte: Multiple timeâ€step molecular dynamics. Journal of Chemical Physics, 1991, 95, 9165-9171.	3.0	22
115	Integral equation theory for associating liquids: Weakly associating 2â€"2 electrolytes. Journal of Chemical Physics, 1991, 95, 9151-9164.	3.0	67
116	On the effects of association in the statistical theory of ionic systems. Analytic solution of the PY-MSA version of the Wertheim theory. Molecular Physics, 1991, 73, 1145-1157.	1.7	107
117	Analytic solution of the RISM equation forn s-atomic symmetric molecules. European Physical Journal D, 1990, 40, 1098-1106.	0.4	3
118	On the application of the EXP-like approximation for the description of the site-site ion-molecular models. Molecular Physics, 1989, 68, 1239-1253.	1.7	20
119	Primitive model of water. Molecular Physics, 1989, 68, 143-160.	1.7	118