Yuri D Fomin

List of Publications by Year
in descending order

69	1,958	236612 25	253896 43
papers	citations	h-index	g-index

70	70	70	733
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Two liquid states of matter: A dynamic line on a phase diagram. Physical Review E, 2012, 85, 031203.	0.8	209
2	â€œLiquid-Gasâ€•Transition in the Supercritical Region: Fundamental Changes in the Particle Dynamics. Physical Review Letters, 2013, 111, 145901.	2.9	142
3	Widom Line for the Liquidâ€“Gas Transition in Lennard-Jones System. Journal of Physical Chemistry B, 2011, 115, 14112-14115.	1.2	120
4	Quasibinary amorphous phase in a three-dimensional system of particles with repulsive-shoulder interactions. Journal of Chemical Physics, 2008, 129, 064512.	1.2	116
5	Waterlike thermodynamic anomalies in a repulsive-shoulder potential system. Physical Review E, 2009, 79, 051202.	0.8	99
6	Thermodynamic properties of supercritical carbon dioxide: Widom and Frenkel lines. Physical Review E, 2015, 91, 022111.	0.8	81
7	Breakdown of excess entropy scaling for systems with thermodynamic anomalies. Physical Review E, 2010, 81, 061201.	0.8	74
8	Berezinskii â€“ Kosterlitz â€“ Thouless transition and two-dimensional melting. Physics-Uspekhi, 2017, 60, 857-885.	0.8	71
9	Inversion of sequence of diffusion and density anomalies in core-softened systems. Journal of Chemical Physics, 2011, 135, 234502.	1.2	55
10	True Widom line for a square-well system. Physical Review E, 2014, 89, 042136.	0.8	46
11	Effect of a potential softness on the solid-liquid transition in a two-dimensional core-softened potential system. Journal of Chemical Physics, 2014, 141, 18C522.	1.2	45
12	Experimental evidence of the Frenkel line in supercritical neon. Physical Review B, 2017, 95, .	1.1	44
13	Silicalike sequence of anomalies in core-softened systems. Physical Review E, 2013, 87, 042122.	0.8	43
14	Core-softened system with attraction: Trajectory dependence of anomalous behavior. Journal of Chemical Physics, 2011, 135, 124512.	1.2	42
15	Complex phase behavior of the system of particles with smooth potential with repulsive shoulder and attractive well. Journal of Chemical Physics, 2011, 134, 044523.	1.2	41
16	Dynamical crossover line in supercritical water. Scientific Reports, 2015, 5, 14234.	1.6	40
17	Random pinning changes the melting scenario of a two-dimensional core-softened potential system. Physical Review E, 2015, 92, 032110.	0.8	36
18	Comparative study of melting of graphite and graphene. Carbon, 2020, 157, 767-778.	5.4	35

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19	How to quantify structural anomalies in fluids?. Journal of Chemical Physics, 2014, 141, 034508.	1.2	33
20	Generalized van der Waals theory of liquid-liquid phase transitions. Physical Review E, 2006, 74, 041201.	0.8	32
21	The phase diagram and melting scenarios of two-dimensional Hertzian spheres. Molecular Physics, 2018, 116, 3258-3270.	0.8	31
22	Dynamic transition in supercritical iron. Scientific Reports, 2014, 4, 7194.	1.6	28
23	Dynamics, thermodynamics and structure of liquids and supercritical fluids: crossover at the Frenkel line. Journal of Physics Condensed Matter, 2018, 30, 134003.	0.7	28
24	Water-like anomalies in the core-softened systems: Dependence on the trajectory in density-temperature plane. Physics Letters, Section A: General, Atomic and Solid State Physics, 2011, 375, 2181-2184.	0.9	26
25	Universal crossover of liquid dynamics in supercritical region. JETP Letters, 2012, 95, 164-169.	0.4	26
26	Melting Scenario of the Two-Dimensional Core-Softened System: First-Order or Continuous Transition?. Journal of Physics: Conference Series, 2014, 510, 012016.	0.3	25
27	Crossover of collective modes and positive sound dispersion in supercritical state. Journal of Physics Condensed Matter, 2016, 28, 43LT01.	0.7	25
28	Direct links between dynamical, thermodynamic, and structural properties of liquids: Modeling results. Physical Review E, 2017, 95, 032116.	0.8	24
29	Complex phase diagrams of systems with isotropic potentials: results of computer simulations. Physics-Uspekhi, 2020, 63, 417-439.	0.8	23
30	Inversion of sequence of anomalies in core-softened systems with attraction. European Physical Journal: Special Topics, 2013, 216, 165-173.	1.2	21
31	Liquid-like and gas-like features of a simple fluid: An insight from theory and simulation. Physica A: Statistical Mechanics and Its Applications, 2018, 509, 690-702.	1.2	21
32	Transport coefficients of soft sphere fluid at high densities. JETP Letters, 2012, 95, 320-325.	0.4	20
33	Isoviscosity lines and the liquid-glass transition in simple liquids. Physical Review E, 2012, 86, 011503.	0.8	17
34	Properties of liquid iron along the melting line up to Earth-core pressures. Journal of Physics Condensed Matter, 2013, 25, 285104.	0.7	17
35	Comment on â€œBehavior of Supercritical Fluids across the â€˜Frenkel Lineâ€™â€•. Journal of Physical Chemistry B, 2018, 122, 6124-6128.	1.2	17
36	The behavior of cyclohexane confined in slit carbon nanopore. Journal of Chemical Physics, 2015, 143, 184702.	1.2	16

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37	The Frenkel line and supercritical technologies. Russian Journal of Physical Chemistry B, 2014, 8, 1087-1094.	0.2	11
38	The influence of random pinning on the melting scenario of two-dimensional soft-disk systems. Molecular Physics, 2019, 117, 2910-2919.	0.8	11
39	Melting scenarios of two-dimensional Hertzian spheres with a single triangular lattice. Soft Matter, 2020, 16, 3962-3972.	1.2	11
40	The stripe phase of two-dimensional core-softened systems: Structure recognition. Physica A: Statistical Mechanics and Its Applications, 2019, 527, 121401.	1.2	10
41	Anomalously high heat capacity of core-softened liquids. Physics and Chemistry of Liquids, 2019, 57, 67-74.	0.4	10
42	The effect of confinement on the solidâ€“liquid transition in a core-softened potential system. Physica A: Statistical Mechanics and Its Applications, 2020, 550, 124521.	1.2	10
43	Complex Phase Behavior of Systems with Negative Curvature Potentials. Defect and Diffusion Forum, 0, 277, 155-160.	0.4	9
44	Dynamical crossover in supercritical core-softened fluids. Fluid Phase Equilibria, 2016, 417, 237-241.	1.4	9
45	Anomalous behavior of dispersion of longitudinal and transverse collective excitations in water. Journal of Molecular Liquids, 2019, 287, 110992.	2.3	9
46	Molecular dynamics simulation of benzene in graphite and amorphous carbon slit pores. Journal of Computational Chemistry, 2013, 34, 2615-2624.	1.5	8
47	Viscosity anomaly in core-softened liquids. Physics Letters, Section A: General, Atomic and Solid State Physics, 2013, 377, 1469-1473.	0.9	8
48	Anomalously high heat capacity of liquids: relation to structural properties. Molecular Physics, 2019, 117, 2786-2792.	0.8	8
49	Between two and three dimensions: Crystal structures in a slit pore. Journal of Colloid and Interface Science, 2020, 580, 135-145.	5.0	8
50	The Frenkel line and isotope effect. Physica A: Statistical Mechanics and Its Applications, 2016, 444, 890-896.	1.2	7
51	Experimental study of water thermodynamics up to 1.2 GPa and 473 K. Journal of Chemical Physics, 2020, 152, 154501.	1.2	6
52	Structural transition in two-dimensional Hertzian spheres in the presence of random pinning. Physical Review E, 2021, 103, 062612.	0.8	6
53	Supercritical GrÃ¼neisen parameter and its universality at the Frenkel line. Physical Review E, 2017, 96, 012107.	0.8	5
54	The role of attraction in the phase diagrams and melting scenarios of generalized 2D Lennard-Jones systems. Journal of Chemical Physics, 2022, 156, 114703.	1.2	5

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55	Crystal structure of a system with three-body interactions in strong confinement. Results in Physics, 2022, 34, 105239.	2.0	4
56	The behaviour of water and sodium chloride solution confined into asbestos nanotube. Molecular Physics, 2016, 114, 2279-2288.	0.8	3
57	Excitation spectra of liquid iron up to superhigh temperatures. Journal of Physics Condensed Matter, 2017, 29, 345401.	0.7	3
58	Anomalous behavior of dispersion curves in water-like systems and water. Fluid Phase Equilibria, 2019, 498, 45-50.	1.4	3
59	A comparison of dynamic properties of a core-softened system of particles across glass transition, melting and random tiling formation. Physics and Chemistry of Liquids, 2020, 58, 290-301.	0.4	3
60	Interplay between freezing and density anomaly in a confined core-softened fluid. Molecular Physics, 2020, 118, e1718792.	0.8	3
61	The phase diagram of a two-dimensional core-softened system with purely repulsive monotonic potential. Physica A: Statistical Mechanics and Its Applications, 2021, 565, 125519.	1.2	3
62	The influence of long-range interaction on the structure of a two-dimensional multi scale potential system. Journal of Physics Condensed Matter, 2019, 31, 315103.	0.7	2
63	The Berezinskiiâ€“Kosterlitzâ€“Thouless Transition and Melting Scenarios of Two-Dimensional Systems. Physics of Particles and Nuclei, 2020, 51, 786-790.	0.2	2
64	Structure and dynamics of molten SrCl2. Physics and Chemistry of Liquids, 2020, 58, 693-700.	0.4	2
65	Melting line and thermodynamic properties of a supeionic compound SrCl₂ by molecular dynamics simulation. Physics and Chemistry of Liquids, 2022, 60, 59-67.	0.4	2
66	Glass transition in a two-dimensional core-softened system. Radioelektronika, Nanosistemy, Informacionnye Tehnologii, 2020, 12, 161-166.	0.2	2
67	The structure of a core-softened system in a narrow slit pore. Physics and Chemistry of Liquids, 2022, 60, 809-826.	0.4	2
68	The temperature dependence of the frequency of longitudinal excitations in liquid along isobars: Simple liquid and water. Journal of Molecular Liquids, 2021, 337, 116450.	2.3	1
69	Dispersion of acoustic excitations in tetrahedral liquids. Journal of Physics Condensed Matter, 2020, 32, 395101.	0.7	0