Alexey O Ivanov

List of Publications by Year
in descending order

115	2,612	186265	214800
papers	citations	28 h-index	47 g-index

116	116	116	992
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Superdiffusion in self-reinforcing run-and-tumble model with rests. Physical Review E, 2022, 105, 014126.	2.1	4
2	Effects of interactions, structure formation, and polydispersity on the dynamic magnetic susceptibility and magnetic relaxation of ferrofluids. Journal of Molecular Liquids, 2022, 356, 119034.	4.9	8
3	How chains and rings affect the dynamic magnetic susceptibility of a highly clustered ferrofluid. Physical Review E, 2021, 103, 062611.	2.1	18
4	The thermodynamic properties of soft magnetic materials containing superparamagnetic nanoparticles frozen in the nodes of the regular cubic lattice. Journal of Nanoparticle Research, 2021, 23, 1.	1.9	4
5	Dynamic Susceptibility of Ferrofluids: The Numerical Algorithm for the Inverse Problem of Magnetic Granulometry. Mathematics, 2021, 9, 2450.	2.2	2
6	Computer Simulations of Dynamic Response of Ferrofluids on an Alternating Magnetic Field with High Amplitude. Mathematics, 2021, 9, 2581.	2.2	3
7	Reactive Alloys of IIA Metals: Gas Sorption and Corrosion as One Process. Journal of Materials Science and Chemical Engineering, 2021, 09, 39-69.	0.4	1
8	Magnetic properties of textured ferrocomposite consisting of immobilized superparamagnetic nanoparticles. Physical Review E, 2021, 104, 064616.	2.1	5
9	Dynamic magnetogranulometry of ferrofluids. Journal of Magnetism and Magnetic Materials, 2020, 498, 166153.	2.3	6
10	Chain Formation and Phase Separation in Ferrofluids: The Influence on Viscous Properties. Materials, 2020, 13, 3956.	2.9	26
11	Effects of interactions on magnetization relaxation dynamics in ferrofluids. Physical Review E, 2020, 102, 032610.	2.1	11
12	Static magnetic response of multicore particles. Physical Review E, 2020, 102, 032603.	2.1	10
13	Modified Mean-Field Theory of One-Dimensional Spin Models with Anisotropy and Long-Range Dipolar Interactions. Ukrainian Journal of Physics, 2020, 65, 691.	0.2	0
14	Tribochemical Purification of Gases. I. The Process Model. Journal of Materials Science and Chemical Engineering, 2020, 08, 37-54.	0.4	1
15	Weakening of magnetic response experimentally observed for ferrofluids with strongly interacting magnetic nanoparticles. Journal of Molecular Liquids, 2019, 277, 762-768.	4.9	10
16	Dynamic susceptibility of a concentrated ferrofluid: The role of interparticle interactions. Physical Review E, 2019, 100, 032605.	2.1	29
17	Dynamics of Magnetic Fluids in Crossed DC and AC Magnetic Fields. Nanomaterials, 2019, 9, 1711.	4.1	8
18	Static magnetization of immobilized, weakly interacting, superparamagnetic nanoparticles. Nanoscale, 2019, 11, 21834-21846.	5.6	32

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19	Concentration-dependent zero-field magnetic dynamic response of polydisperse ferrofluids. Journal of Magnetism and Magnetic Materials, 2018, 459, 252-255.	2.3	8
20	Dynamic magnetic response of a ferrofluid in a static uniform magnetic field. Physical Review E, 2018, 98, .	2.1	25
21	Theory of the dynamic magnetic susceptibility of ferrofluids. Physical Review E, 2018, 98, .	2.1	43
22	Getters for vacuum insulated glazing. Vacuum, 2018, 155, 300-306.	3.5	10
23	Mechanochemical Methods in the Production of High Purity Gases. Materials Sciences and Applications, 2018, 09, 489-501.	0.4	2
24	The influence of the concentration on the initial dynamic susceptibility of weakly interacting dipolar fluids: an analysis using theory and computer simulations. Magnetohydrodynamics, 2018, 54, 27-32.	0.3	0
25	Free energy calculations for rings and chains formed by dipolar hard spheres. Soft Matter, 2017, 13, 7870-7878.	2.7	15
26	Modified mean-field theory of the magnetic properties of concentrated, high-susceptibility, polydisperse ferrofluids. Physical Review E, 2017, 96, 052609.	2.1	29
27	Transverse magneto-optical anisotropy in bidisperse ferrofluids with long range particle correlations. Journal of Magnetism and Magnetic Materials, 2017, 431, 54-58.	2.3	8
28	The influence of interparticle correlations and self-assembly on the dynamic initial magnetic susceptibility spectra of ferrofluids. Journal of Magnetism and Magnetic Materials, 2017, 431, 141-144.	2.3	19
29	Theoretical study of the dynamic magnetic response of ferrofluid to static and alternating magnetic fields. Journal of Magnetism and Magnetic Materials, 2017, 431, 180-183.	2.3	10
30	The initial magnetic susceptibility of polydisperse ferrofluids: A comparison between experiment and theory over a wide range of concentration. Journal of Chemical Physics, 2016, 145, 084909.	3.0	13
31	Sedimentation equilibria in polydisperse ferrofluids: critical comparisons between experiment, theory, and computer simulation. Soft Matter, 2016, 12, 4103-4112.	2.7	19
32	Influence of dipolar interactions on the magnetic susceptibility spectra of ferrofluids. Physical Review E, 2016, 93, 063117.	2.1	54
33	Temperature-dependent dynamic correlations in suspensions of magnetic nanoparticles in a broad range of concentrations: a combined experimental and theoretical study. Physical Chemistry Chemical Physics, 2016, 18, 18342-18352.	2.8	35
34	Revealing the signature of dipolar interactions in dynamic spectra of polydisperse magnetic nanoparticles. Soft Matter, 2016, 12, 3507-3513.	2.7	70
35	Temperature dependence of initial magnetic susceptibility of polydisperse ferrofluids: A critical comparison between experiment and theory. Magnetohydrodynamics, 2016, 52, 35-42.	0.3	8
36	Weak field magnetic susceptibility of ferrofluid emultions: the influence of droplet polydispersity. Magnetohydrodynamics, 2016, 52, 269-276.	0.3	2

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37	Temperature-induced structural transitions in self-assembling magnetic nanocolloids. Physical Chemistry Chemical Physics, 2015, 17, 16601-16608.	2.8	38
38	The effect of links on the interparticle dipolar correlations in supramolecular magnetic filaments. Soft Matter, 2015, 11, 2963-2972.	2.7	21
39	Thermodynamics of the Stockmayer fluid in an applied field. Molecular Physics, 2015, 113, 3717-3728.	1.7	7
40	Low temperature structural transitions in dipolar hard spheres: The influence on magnetic properties. Journal of Magnetism and Magnetic Materials, 2015, 383, 272-276.	2.3	5
41	Low-temperature magnetic susceptibility of concentrated ferrofluids: The influence of polydispersity. Journal of Magnetism and Magnetic Materials, 2015, 374, 327-332.	2.3	15
42	The effects of polydispersity on the initial susceptibilities of ferrofluids. Journal of Physics Condensed Matter, 2014, 26, 456002.	1.8	20
43	Free energy of dipolar hard spheres: The virial expansion under the presence of an external magnetic field. Physica A: Statistical Mechanics and Its Applications, 2014, 415, 210-219.	2.6	2
44	Pair correlations in a bidisperse ferrofluid in an external magnetic field: theory and computer simulations. Journal of Experimental and Theoretical Physics, 2014, 118, 442-456.	0.9	8
45	Thermodynamics of ferrofluids in applied magnetic fields. Physical Review E, 2013, 88, 042310.	2.1	27
46	Mesoscale structures at complex fluidâ€“fluid interfaces: a novel lattice Boltzmann/molecular dynamics coupling. Soft Matter, 2013, 9, 10092.	2.7	51
47	Nonmonotonic Magnetic Susceptibility of Dipolar Hard-Spheres at Low Temperature and Density. Physical Review Letters, 2013, 110, 148306.	7.8	75
48	Branching points in the low-temperature dipolar hard sphere fluid. Journal of Chemical Physics, 2013, 139, 134901.	3.0	33
49	Non-homogeneous Random Walks, Subdiffusive Migration of Cells and Anomalous Chemotaxis. Mathematical Modelling of Natural Phenomena, 2013, 8, 28-43.	2.4	15
50	Structure factor of model bidisperse ferrofluids with relatively weak interparticle interactions. Journal of Chemical Physics, 2013, 139, 224905.	3.0	14
51	Evaporators of Reactive Metals and Droplet Casting. Recent Patents on Materials Science, 2013, 6, 214-228.	0.5	1
52	Structure Properties of Polydisperse Magnetic Fluids. Solid State Phenomena, 2012, 190, 641-644.	0.3	1
53	Nonmonotonic field-dependent magnetic permeability of a paramagnetic ferrofluid emulsion. Physical Review E, 2012, 85, 041405.	2.1	22
54	Thermodynamics of dipolar hard spheres with low-to-intermediate coupling constants. Physical Review E, 2012, 86, 021126.	2.1	27

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55	Theory and simulation of anisotropic pair correlations in ferrofluids in magnetic fields. Journal of Chemical Physics, 2012, 136, 194502.	3.0	32
56	Magnetophoresis, sedimentation, and diffusion of particles in concentrated magnetic fluids. Journal of Chemical Physics, 2011, 134, 184508.	3.0	45
57	Study of the structure factor anisotropy and long range correlations of ferrofluids in the dilute low-coupling regime. Journal of Magnetism and Magnetic Materials, 2011, 323, 1246-1253.	2.3	4
58	Getter films with a reactive component. Vacuum, 2011, 85, 755-760.	3.5	3
59	Pair correlations in magnetic nanodispersed fluids. Journal of Experimental and Theoretical Physics, 2010, 111, 146-156.	0.9	21
60	Behavior of bulky ferrofluids in the diluted low-coupling regime: Theory and simulation. Physical Review E, 2010, 81, 011501.	2.1	30
61	The role of van der Waals forces in ferrofluid phase separation. Physics Procedia, 2010, 9, 49-53.	1.2	6
62	Anomalous transport and nonlinear reactions in spiny dendrites. Physical Review E, 2010, 82, 041103.	2.1	22
63	Modeling of the generation of a vacuum using getter materials. Theoretical Foundations of Chemical Engineering, 2009, 43, 936-943.	0.7	1
64	New lithium gas sorbents. Journal of Alloys and Compounds, 2009, 471, 211-216.	5.5	10
65	How to analyse the structure factor in ferrofluids with strong magnetic interactions: a combined analytic and simulation approach. Molecular Physics, 2009, 107, 571-590.	1.7	29
66	Magnetization behavior of ferrofluids with cryogenically imaged dipolar chains. Journal of Physics Condensed Matter, 2008, 20, 204113.	1.8	18
67	New lithium gas sorbents. Journal of Alloys and Compounds, 2008, 456, 187-193.	5.5	9
68	New lithium gas sorbent. Journal of Alloys and Compounds, 2008, 460, 357-362.	5.5	9
69	Comment on â€œEquilibrium polymerization and gas-liquid critical behavior in the Stockmayer fluidâ€• Physical Review E, 2008, 77, 013501; discussion 013502.	2.1	13
70	Magnetic properties of polydisperse ferrofluids: A critical comparison between experiment, theory, and computer simulation. Physical Review E, 2007, 75, 061405.	2.1	130
71	The influence of chain aggregates on the magnetic properties of ferrocolloids. Colloid Journal, 2007, 69, 294-301.	1.3	0
72	Phase separation of ferrocolloids: The role of van der Waals interaction. Colloid Journal, 2007, 69, 302-311.	1.3	16

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73	Magnetic measurements as a key for the particle size distribution in ferrofluids: experiment, theory, and computer simulations. Magnetohydrodynamics, 2007, 43, 393-400.	0.3	19
74	Polydispersity Influence upon Magnetic Properties of Aggregated Ferrofluids. Zeitschrift Fur Physikalische Chemie, 2006, 220, 105-115.	2.8	2
75	Magnetogranulometric analysis of ferrocolloids: Second-order modified mean field theory. Colloid Journal, 2006, 68, 430-440.	1.3	44
76	Evolution of an ensemble of fractal aggregates in a colloidal system. Journal of Experimental and Theoretical Physics, 2006, 103, 917-925.	0.9	4
77	Ferrofluid aggregation in chains under the influence of a magnetic field. Journal of Magnetism and Magnetic Materials, 2006, 300, e206-e209.	2.3	43
78	Equilibrium properties of a bidisperse ferrofluid with chain aggregates: theory and computer simulations. Journal of Physics Condensed Matter, 2006, 18, S2737-S2756.	1.8	40
79	Evolution of the fractal-like aggregate system in colloids. Physical Review E, 2006, 74, 021408.	2.1	5
80	Spontaneous orientational ordering in magnetic fluids. Journal of Magnetism and Magnetic Materials, 2005, 289, 226-229.	2.3	2
81	Magnetic properties of ferrofluids: an influence of chain aggregates. Journal of Magnetism and Magnetic Materials, 2005, 289, 211-214.	2.3	23
82	Initial magnetic susceptibility of ferrocolloids: The influence of chain aggregates. Colloid Journal, 2004, 66, 679-687.	1.3	1
83	The aggregation of ferrocolloids in a magnetic field. Colloid Journal, 2004, 66, 688-695.	1.3	0
84	Chain aggregate structure and magnetic birefringence in polydisperse ferrofluids. Physical Review E, 2004, 70, 021401.	2.1	87
85	Applying the chain formation model to magnetic properties of aggregated ferrofluids. Physical Review E, 2004, 69, 031206.	2.1	52
86	Ferrofluid aggregation in chains under the influence of a magnetic field. Physical Review E, 2004, 70, 051502.	2.1	148
87	Structure of Chain Aggregates in Ferrocolloids. Colloid Journal, 2003, 65, 166-176.	1.3	24
88	Non-Local Mean Field Dynamo Theory and Magnetic Fronts in Galaxies. Geophysical and Astrophysical Fluid Dynamics, 2003, 97, 135-148.	1.2	4
89	Spontaneous ferromagnetic ordering in magnetic fluids. Physical Review E, 2003, 68, 011503.	2.1	11
90	Memory effects in a turbulent dynamo: Generation and propagation of a large-scale magnetic field. Physical Review E, 2002, 65, 036313.	2.1	10

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91	Mean field theories and ferromagnetic ordering in ferrofluids. Journal of Magnetism and Magnetic Materials, 2002, 252, 126-128.	2.3	0
92	Magnetic properties of dense ferrofluids. Journal of Magnetism and Magnetic Materials, 2002, 252, 135-137.	2.3	15
93	Formation of chain aggregates in magnetic fluids: an influence of polydispersity. Journal of Magnetism and Magnetic Materials, 2002, 252, 244-246.	2.3	24
94	To the theory of phase transitions in layered ferrofluids. Journal of Magnetism and Magnetic Materials, 2002, 252, 120-122.	2.3	0
95	Fractal structure of a colloidal aggregate. Doklady Physics, 2002, 47, 261-266.	0.7	1
96	Scaling properties of a two-phase zone in directed crystallization. Doklady Physics, 2002, 47, 499-503.	0.7	4
97	Magnetic properties of dense ferrofluids: An influence of interparticle correlations. Physical Review E, 2001, 64, 041405.	2.1	234
98	On the theory of physical properties and phase transitions in ferrosmectics. Physica A: Statistical Mechanics and Its Applications, 2001, 291, 362-374.	2.6	1
99	Interparticle Correlations and Magnetic Properties of Concentrated Ferrocolloids. Colloid Journal, 2001, 63, 60-67.	1.3	14
100	Internal structure of colloidal aggregates. Physical Review E, 2001, 64, 041403.	2.1	5
101	Dynamic stability analysis of the solidification of binary melts in the presence of a mushy region: changeover of instability. Journal of Crystal Growth, 2000, 210, 797-810.	1.5	56
102	Phase separation in magnetic colloids. Journal of Magnetism and Magnetic Materials, 1999, 201, 234-237.	2.3	5
103	Kinetics of a ferrofluid phase separation induced by an external magnetic field. Journal of Magnetism and Magnetic Materials, 1999, 201, 222-225.	2.3	3
104	Non-linear evolution of a system of elongated droplike aggregates in a metastable magnetic fluid. Physica A: Statistical Mechanics and Its Applications, 1998, 251, 348-367.	2.6	47
105	Nucleation stage of ferrocolloid phase separation induced by an external magnetic field. Physica A: Statistical Mechanics and Its Applications, 1998, 251, 332-347.	2.6	10
106	Ostwald ripening kinetics in a magnetic fluid made metastable by a strengthening of an external magnetic field. Physical Review E, 1998, 58, 7517-7522.	2.1	10
107	Kinetics of a magnetic fluid phase separation induced by an external magnetic field. Physical Review E, 1997, 55, 7192-7202.	2.1	43
108	Phase separation in bidisperse ferrocolloids. Journal of Magnetism and Magnetic Materials, 1996, 154, 66-70.	2.3	40

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109	The effect of an electrolyte on phase separation in colloids. Physica A: Statistical Mechanics and Its Applications, 1994, 202, 175-195.	2.6	4
110	Kinetics of phase separation in colloids II. Non-linear evolution of a metastable colloid. Physica A: Statistical Mechanics and Its Applications, 1993, 193, 221-240.	2.6	41
111	Kinetics of phase separation in colloids. Physica A: Statistical Mechanics and Its Applications, 1993, 192, 375-390.	2.6	17
112	Evolution of a system of nuclei growing in the diffusion regime with fluctuating rates. Journal of Applied Mechanics and Technical Physics, 1993, 34, 247-253.	0.5	0
113	Separation kinetics of ferrocolloids in the absence of a magnetic field. Journal of Engineering Physics and Thermophysics, 1993, 64, 14-22.	0.6	0
114	Equilibrium properties of ferrocolloids. Physica A: Statistical Mechanics and Its Applications, 1992, 190, 276-294.	2.6	183
115	Statistical thermodynamics of ferrocolloids. Journal of Magnetism and Magnetic Materials, 1990, 85, 33-36.	2.3	7