Sofia Kantorovich

List of Publications by Year
in descending order

113	2,361	29	43
papers	citations	h-index	g-index
		172457	254184

115	115	115	1477
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Magnetic properties of polydisperse ferrofluids: A critical comparison between experiment, theory, and computer simulation. Physical Review E, 2007, 75, 061405.	2.1	130
2	Chain aggregate structure and magnetic birefringence in polydisperse ferrofluids. Physical Review E, 2004, 70, 021401.	2.1	87
3	Deformation mechanisms in 2D magnetic gels studied by computer simulations. Soft Matter, 2012, 8, 9923.	2.7	87
4	An iterative, fast, linear-scaling method for computing induced charges on arbitrary dielectric boundaries. Journal of Chemical Physics, 2010, 132, 154112.	3.0	76
5	Nonmonotonic Magnetic Susceptibility of Dipolar Hard-Spheres at Low Temperature and Density. Physical Review Letters, 2013, 110, 148306.	7.8	75
6	The generalized identification of truly interfacial molecules (ITIM) algorithm for nonplanar interfaces. Journal of Chemical Physics, 2013, 138, 044110.	3.0	70
7	Revealing the signature of dipolar interactions in dynamic spectra of polydisperse magnetic nanoparticles. Soft Matter, 2016, 12, 3507-3513.	2.7	70
8	Ground state structures in ferrofluid monolayers. Physical Review E, 2009, 80, 031404.	2.1	64
9	Influence of dipolar interactions on the magnetic susceptibility spectra of ferrofluids. Physical Review E, 2016, 93, 063117.	2.1	54
10	Self-organization in dipolar cube fluids constrained by competing anisotropies. Soft Matter, 2018, 14, 1080-1087.	2.7	52
11	Mesoscale structures at complex fluidâ€“fluid interfaces: a novel lattice Boltzmann/molecular dynamics coupling. Soft Matter, 2013, 9, 10092.	2.7	51
12	Microstructure analysis of monodisperse ferrofluid monolayers: theory and simulation. Physical Chemistry Chemical Physics, 2008, 10, 1883.	2.8	50
13	Directional self-assembly of permanently magnetised nanocubes in quasi two dimensional layers. Nanoscale, 2015, 7, 3217-3228.	5.6	49
14	Ferrogels cross-linked by magnetic nanoparticlesâ€”Deformation mechanisms in two and three dimensions studied by means of computer simulations. Journal of Magnetism and Magnetic Materials, 2015, 383, 262-266.	2.3	48
15	Importance of matrix inelastic deformations in the initial response of magnetic elastomers. Soft Matter, 2018, 14, 2170-2183.	2.7	48
16	Ferrofluids with shifted dipoles: ground state structures. Soft Matter, 2011, 7, 5217.	2.7	46
17	Ferrofluid aggregation in chains under the influence of a magnetic field. Journal of Magnetism and Magnetic Materials, 2006, 300, e206-e209.	2.3	43
18	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

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19	Ferrogels cross-linked by magnetic particles: Field-driven deformation and elasticity studied using computer simulations. Journal of Chemical Physics, 2015, 143, 154901.	3.0	40
20	Kinetic dielectric decrement revisited: phenomenology of finite ion concentrations. Physical Chemistry Chemical Physics, 2015, 17, 130-133.	2.8	40
21	Temperature-induced structural transitions in self-assembling magnetic nanocolloids. Physical Chemistry Chemical Physics, 2015, 17, 16601-16608.	2.8	38
22	How cube-like must magnetic nanoparticles be to modify their self-assembly?. Nanoscale, 2017, 9, 6448-6462.	5.6	38
23	Surface relief of magnetoactive elastomeric films in a homogeneous magnetic field: molecular dynamics simulations. Soft Matter, 2019, 15, 175-189.	2.7	36
24	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
25	Modeling the magnetostriction effect in elastomers with magnetically soft and hard particles. Soft Matter, 2019, 15, 7145-7158.	2.7	35
26	Branching points in the low-temperature dipolar hard sphere fluid. Journal of Chemical Physics, 2013, 139, 134901.	3.0	33
27	Cluster formation in systems of shifted-dipole particles. Soft Matter, 2013, 9, 3535.	2.7	32
28	Calculation of the Intrinsic Solvation Free Energy Profile of an Ionic Penetrant Across a Liquidâ€“Liquid Interface with Computer Simulations. Journal of Physical Chemistry B, 2013, 117, 16148-16156.	2.6	31
29	Aggregate formation in ferrofluid monolayers: simulations and theory. Journal of Physics Condensed Matter, 2008, 20, 204125.	1.8	30
30	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
31	The influence of the magnetic filler concentration on the properties of a microgel particle: Zero-field case. Journal of Magnetism and Magnetic Materials, 2018, 459, 226-230.	2.3	27
32	Communication: Kinetic and pairing contributions in the dielectric spectra of electrolyte solutions. Journal of Chemical Physics, 2014, 140, 211101.	3.0	25
33	Formation of chain aggregates in magnetic fluids: an influence of polydispersity. Journal of Magnetism and Magnetic Materials, 2002, 252, 244-246.	2.3	24
34	Structure of Chain Aggregates in Ferrocolloids. Colloid Journal, 2003, 65, 166-176.	1.3	24
35	Microstructure and magnetic properties of magnetic fluids consisting of shifted dipole particles under the influence of an external magnetic field. Journal of Chemical Physics, 2013, 139, 214901.	3.0	23
36	Magnetic particles with shifted dipoles. Journal of Magnetism and Magnetic Materials, 2011, 323, 1269-1272.	2.3	22

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37	The influence of shape anisotropy on the microstructure of magnetic dipolar particles. Soft Matter, 2013, 9, 6594.	2.7	22
38	Supramolecular Magnetic Brushes: The Impact of Dipolar Interactions on the Equilibrium Structure. Macromolecules, 2015, 48, 7658-7669.	4.8	22
39	The effect of links on the interparticle dipolar correlations in supramolecular magnetic filaments. Soft Matter, 2015, 11, 2963-2972.	2.7	21
40	Characterisation of the magnetic response of nanoscale magnetic filaments in applied fields. Nanoscale, 2020, 12, 13933-13947.	5.6	20
41	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
42	Ground-state structures and structural transitions in a monolayer of magnetic dipolar particles in the presence of an external magnetic field. Physical Review E, 2012, 86, 061408.	2.1	18
43	Bistable self-assembly in homogeneous colloidal systems for flexible modular architectures. Soft Matter, 2016, 12, 2737-2743.	2.7	18
44	Nanoparticle Shape Influences the Magnetic Response of Ferro-Colloids. ACS Nano, 2017, 11, 8153-8166.	14.6	17
45	Cluster analysis in systems of magnetic spheres and cubes. Journal of Magnetism and Magnetic Materials, 2017, 431, 201-204.	2.3	17
46	Chain aggregate structure in polydisperse ferrofluids: different applications. Journal of Magnetism and Magnetic Materials, 2005, 289, 203-206.	2.3	16
47	Self-assembly of polymer-like structures of magnetic colloids: Langevin dynamics study of basic topologies. Molecular Simulation, 2018, 44, 507-515.	2.0	16
48	The influence of an applied magnetic field on the self-assembly of magnetic nanogels. Journal of Molecular Liquids, 2020, 307, 112902.	4.9	16
49	Behaviour of magnetic Janus-like colloids. Journal of Physics Condensed Matter, 2015, 27, 234102.	1.8	15
50	Intrinsic Structure of the Interface of Partially Miscible Fluids: An Application to Ionic Liquids. Journal of Physical Chemistry C, 2015, 119, 28448-28461.	3.1	15
51	Free energy calculations for rings and chains formed by dipolar hard spheres. Soft Matter, 2017, 13, 7870-7878.	2.7	15
52	Self-assembly of charged colloidal cubes. Soft Matter, 2020, 16, 4451-4461.	2.7	15
53	Divalent Multilinking Bonds Control Growth and Morphology of Nanopolymers. Nano Letters, 2021, 21, 10547-10554.	9.1	15
54	Electronic structure and magnetic properties of GdM2 compounds. Journal of Magnetism and Magnetic Materials, 2003, 258-259, 471-473.	2.3	14

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55	Structure factor of model bidisperse ferrofluids with relatively weak interparticle interactions. Journal of Chemical Physics, 2013, 139, 224905.	3.0	14
56	Flexible magnetic filaments under the influence of external magnetic fields in the limit of infinite dilution. Physical Chemistry Chemical Physics, 2016, 18, 12616-12625.	2.8	14
57	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
58	Structure factor of ferrofluids with chain aggregates: Theory and computer simulations. Journal of Magnetism and Magnetic Materials, 2011, 323, 1263-1268.	2.3	12
59	On the Calculation of the Dielectric Properties of Liquid Ionic Systems. NATO Science for Peace and Security Series B: Physics and Biophysics, 2013, , 103-122.	0.3	12
60	Ground state microstructure of a ferrofluid thin layer. Journal of Experimental and Theoretical Physics, 2011, 113, 435-449.	0.9	11
61	Field-responsive colloidal assemblies defined by magnetic anisotropy. Physical Review E, 2019, 100, 012608.	2.1	11
62	Ground state structures in ferrofluid monolayers. Journal of Magnetism and Magnetic Materials, 2011, 323, 1298-1301.	2.3	10
63	How to calculate structure factors of self-assembling anisotropic particles. Soft Matter, 2013, 9, 4412.	2.7	10
64	The behavior of a magnetic filament in flow under the influence of an external magnetic field. Journal of Chemical Physics, 2016, 145, 234902.	3.0	10
65	Weakening of magnetic response experimentally observed for ferrofluids with strongly interacting magnetic nanoparticles. Journal of Molecular Liquids, 2019, 277, 762-768.	4.9	10
66	Studying synthesis confinement effects on the internal structure of nanogels in computer simulations. Journal of Molecular Liquids, 2019, 289, 111066.	4.9	10
67	Anisometric and anisotropic magnetic colloids: How to tune the response. Journal of Magnetism and Magnetic Materials, 2015, 383, 267-271.	2.3	9
68	Magnetic filament brushes: tuning the properties of a magnetoresponsive supracolloidal coating. Faraday Discussions, 2016, 186, 241-263.	3.2	9
69	Self-assembly of designed supramolecular magnetic filaments of different shapes. Journal of Magnetism and Magnetic Materials, 2017, 431, 152-156.	2.3	9
70	Coarsening dynamics of ferromagnetic granular networksâ€"experimental results and simulations. Soft Matter, 2018, 14, 1001-1015.	2.7	9
71	The impact of magnetic field on the conformations of supracolloidal polymer-like structures with super-paramagnetic monomers. Journal of Molecular Liquids, 2020, 305, 112761.	4.9	9
72	Magnetic Flux Topology of 2D Point Dipoles. Computer Graphics Forum, 2012, 31, 955-964.	3.0	8

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73	Microstructure of bidisperse ferrofluids in a thin layer. Journal of Experimental and Theoretical Physics, 2013, 116, 424-441.	0.9	8
74	Concentration-dependent zero-field magnetic dynamic response of polydisperse ferrofluids. Journal of Magnetism and Magnetic Materials, 2018, 459, 252-255.	2.3	8
75	Magnetic responsive brushes under flow in strongly confined slits: external field control of brush structure and flowing particle mixture separation. Soft Matter, 2019, 15, 8982-8991.	2.7	8
76	Magneto-elastic coupling as a key to microstructural response of magnetic elastomers with flake-like particles. Soft Matter, 2022, 18, 496-506.	2.7	7
77	Scattering properties and internal structure of magnetic filament brushes. Soft Matter, 2017, 13, 2590-2602.	2.7	6
78	Suspensions of supracolloidal magnetic polymers: Self-assembly properties from computer simulations. Journal of Molecular Liquids, 2018, 271, 631-638.	4.9	6
79	The structure of clusters formed by Stockmayer supracolloidal magnetic polymers. European Physical Journal E, 2019, 42, 158.	1.6	6
80	Suspensions of magnetic nanogels at zero field: Equilibrium structural properties. Journal of Magnetism and Magnetic Materials, 2020, 498, 166152.	2.3	6
81	Measuring FORCs diagrams in computer simulations as a mean to gain microscopic insight. Journal of Magnetism and Magnetic Materials, 2020, 501, 166393.	2.3	6
82	Self-diffusion in bidisperse systems of magnetic nanoparticles. Physical Review E, 2021, 103, 012612.	2.1	6
83	Behaviour of a magnetic nanogel in a shear flow. Journal of Molecular Liquids, 2022, 346, 118056.	4.9	6
84	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
85	Compressibility of ferrofluids: Towards a better understanding of structural properties. European Physical Journal E, 2018, 41, 67.	1.6	5
86	Diffusion of single active-dipolar cubes in applied fields. Journal of Molecular Liquids, 2020, 304, 112688.	4.9	5
87	The influence of polydispersity on the structural properties of the isotropic phase of magnetic nanoplatelets. Journal of Molecular Liquids, 2020, 312, 113293.	4.9	5
88	Structural and magnetic equilibrium properties of a semi-dilute suspension of magnetic multicore nanoparticles. Journal of Molecular Liquids, 2022, 359, 119373.	4.9	5
89	Nanopolymers for magnetic applications: how to choose the architecture?. Nanoscale, 0, , .	5.6	5
90	The influence of dimensionality on the behavior of magnetic dipolar soft spheres: calculation of the pressure. Journal of Physics Condensed Matter, 2013, 25, 155102.	1.8	4

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91	Self-diffusion in monodisperse three-dimensional magnetic fluids by molecular dynamics simulations. Journal of Magnetism and Magnetic Materials, 2017, 431, 176-179.	2.3	4
92	Supracolloidal magnetic polymer-like aggregates: Structural properties of self-assembled pairs. Journal of Magnetism and Magnetic Materials, 2019, 470, 22-27.	2.3	4
93	Unknotting of quasi-two-dimensional ferrogranular networks by in-plane homogeneous magnetic fields. Journal of Magnetism and Magnetic Materials, 2020, 499, 166182.	2.3	4
94	Directing the Diffusion of a Nonmagnetic Nanosized Active Particle with External Magnetic Fields. Journal of Physical Chemistry B, 2020, 124, 8188-8197.	2.6	4
95	Bidisperse monolayers: Theory and computer simulations. Physics Procedia, 2010, 9, 87-90.	1.2	3
96	Dilution effects on combined magnetic and electric dipole interactions: A study of ferromagnetic cobalt nanoparticles with tuneable interactions. Journal of Chemical Physics, 2017, 147, 084901.	3.0	3
97	Magnetic properties of clusters of supracolloidal magnetic polymers with central attraction. Journal of Magnetism and Magnetic Materials, 2020, 497, 166025.	2.3	3
98	Adsorption transition of a grafted ferromagnetic filament controlled by external magnetic fields. Physical Review E, 2020, 102, 022609.	2.1	3
99	Flux and separation of magneto-active superballs in applied fields. Physical Chemistry Chemical Physics, 2021, 23, 23827-23835.	2.8	3
100	Magnetostriction in elastomers with mixtures of magnetically hard and soft microparticles: effects of nonlinear magnetization and matrix rigidity. ChemistrySelect, 2022, 7, 1187-1208.	1.5	3
101	Polydispersity Influence upon Magnetic Properties of Aggregated Ferrofluids. Zeitschrift Fur Physikalische Chemie, 2006, 220, 105-115.	2.8	2
102	Microstructure of Bidisperse Ferrofluids in a Monolayer. Solid State Phenomena, 2012, 190, 625-628.	0.3	2
103	Self-assembly of colloids with magnetic caps. Journal of Magnetism and Magnetic Materials, 2017, 431, 214-217.	2.3	2
104	Pressure and compressibility factor of bidisperse magnetic fluids. Journal of Physics Condensed Matter, 2018, 30, 145101.	1.8	2
105	Scaling behaviour of the structure factor of chain-forming ferrofluids at low wave vectors. Magnetohydrodynamics, 2008, 44, 33-38.	0.3	2
106	Structural transitions and magnetic response of supramolecular magnetic polymerlike structures with bidisperse monomers. Physical Review E, 2022, 105, .	2.1	2
107	Physical properties of a ferrofluid with chain aggregates. Physics of Metals and Metallography, 2006, 102, S36-S38.	1.0	1
108	Nematic phase characterisation of the self-assembling sphere-cylinders based on the theoretically calculated RDFs. European Physical Journal E, 2015, 38, 81.	1.6	1

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109	Modeling and Theory: general discussion. Faraday Discussions, 2016, 186, 371-398.	3.2	1
110	Structure formation and phase behaviour in ferrofluid monolayers: theory and computer simulations. Proceedings in Applied Mathematics and Mechanics, 2007, 7, 4140021-4140022.	0.2	0
111	Structure factor of ferrofluids with chain aggregates: Influence of an external magnetic field. Physics of Particles and Nuclei Letters, 2011, 8, 1051-1053.	0.4	0
112	The influence of crosslinkers and magnetic particle distribution along the filament backbone on the magnetic properties of supracolloidal linear polymer-like chains. Journal of Magnetism and Magnetic Materials, 2020, 497, 166029.	2.3	0
113	The importance of being a cube: active cubes in a microchannel. Journal of Molecular Liquids, 2022, , 119318.	4.9	0