Alenka Mertelj

List of Publications by Year in descending order

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76 papers	2,675 citations	172457 29 h-index	189892 50 g-index
79 all docs	79 docs citations	79 times ranked	2584 citing authors

#	Article	IF	Citations
1	Design of a single-chain polypeptide tetrahedron assembled from coiled-coil segments. Nature Chemical Biology, 2013, 9, 362-366.	8.0	272
2	Ferromagnetism in suspensions of magnetic platelets in liquid crystal. Nature, 2013, 504, 237-241.	27.8	254
3	Anisotropic magnetic nanoparticles: A review of their properties, syntheses and potential applications. Progress in Materials Science, 2018, 95, 286-328.	32.8	229
4	Chemically induced twist-bend nematic liquid crystals, liquid crystal dimers, and negative elastic constants. Physical Review E, 2013, 88, 022503.	2.1	180
5	Ferroelectric-Ferroelastic Phase Transition in a Nematic Liquid Crystal. Physical Review Letters, 2020, 124, 037801.	7.8	123
6	Spontaneous liquid crystal and ferromagnetic ordering of colloidal magnetic nanoplates. Nature Communications, 2016, 7, 10394.	12.8	94
7	Magneto-optic and converse magnetoelectric effects in a ferromagnetic liquid crystal. Soft Matter, 2014, 10, 9065-9072.	2.7	92
8	Ferromagnetic nematic liquid crystals. Liquid Crystals Reviews, 2017, 5, 1-33.	4.1	86
9	Investigation of Encapsulation and Solvatochromism of Fullerenes in Binary Solvent Mixtures. Journal of Physical Chemistry B, 1999, 103, 11256-11260.	2.6	62
10	Splay Nematic Phase. Physical Review X, 2018, 8, .	8.9	61
11	On the molecular origins of the ferroelectric splay nematic phase. Nature Communications, 2021, 12, 4962.	12.8	61
12	Surface-Dominated Orientational Dynamics and Surface Viscosity in Confined Liquid Crystals. Physical Review Letters, 1998, 81, 5844-5847.	7.8	52
13	Electrooptics of mm-scale polar domains in the ferroelectric nematic phase. Liquid Crystals, 2021, 48, 2055-2071.	2.2	47
14	Aging of surface anchoring and surface viscosity of a nematic liquid crystal on photoaligning poly-(vinyl-cinnamate). Physical Review E, 2001, 63, 061709.	2.1	45
15	Dynamic light scattering in polymer-dispersed liquid crystals. Physical Review E, 1997, 56, 549-553.	2.1	44
16	Coupled director and polarization fluctuations in suspensions of ferroelectric nanoparticles in nematic liquid crystals. Physical Review E, 2007, 76, 011702.	2.1	37
17	Magnetodielectric and magnetoviscosity response of a ferromagnetic liquid crystal at low magnetic fields. Applied Physics Letters, 2015, 106, .	3.3	37
18	Adsorption of Amino Acids, Aspartic Acid, and Lysine onto Iron-Oxide Nanoparticles. Journal of Physical Chemistry C, 2016, 120, 14372-14381.	3.1	37

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19	Evidence of dynamic long-range correlations in a nematic-liquid-crystalâ€“aerogel system. Physical Review E, 1997, 55, 504-507.	2.1	35
20	Controlled heteroaggregation of two types of nanoparticles in an aqueous suspension. Journal of Colloid and Interface Science, 2015, 438, 235-243.	9.4	35
21	Dynamic light scattering as a probe of orientational dynamics in confined liquid crystals. Physical Review E, 2000, 61, 1622-1628.	2.1	34
22	Anomalous diffusion in ferrofluids. Physical Review E, 2009, 79, 041402.	2.1	34
23	Magnetic-field tuning of whispering gallery mode lasing from ferromagnetic nematic liquid crystal microdroplets. Optics Express, 2017, 25, 1073.	3.4	34
24	Orientational order in the splay nematic ground state. Physical Chemistry Chemical Physics, 2019, 21, 18769-18772.	2.8	34
25	Dynamic light scattering measurements of azimuthal and zenithal anchoring of nematic liquid crystals. Physical Review E, 2002, 65, 041712.	2.1	33
26	Monolithic Magneto-Optical Nanocomposites of Barium Hexaferrite Platelets in PMMA. Scientific Reports, 2015, 5, 11395.	3.3	33
27	Phase transitions, optical, dielectric and viscoelastic properties of colloidal suspensions of BaTiO₃nanoparticles and cyanobiphenyl liquid crystals. Liquid Crystals, 2015, 42, 1059-1067.	2.2	31
28	Field-controlled structures in ferromagnetic cholesteric liquid crystals. Science Advances, 2017, 3, e1701336.	10.3	31
29	Composition, structure and morphology of hybrid acrylate-based solâ€“gel coatings containing Si and Zr composed for protective applications. Surface and Coatings Technology, 2016, 286, 388-396.	4.8	30
30	Magneto-optic dynamics in a ferromagnetic nematic liquid crystal. Physical Review E, 2018, 97, 012701.	2.1	30
31	Dynamic Magneto-optic Coupling in a Ferromagnetic Nematic Liquid Crystal. Physical Review Letters, 2017, 119, 097802.	7.8	29
32	Enhanced Magneto-Optical Properties of Suspensions of Spindle Type Mono-Dispersed Hematite Nano-Particles in Liquid Crystal. Molecular Crystals and Liquid Crystals, 2010, 525, 104-111.	0.9	28
33	Reorientation in Random Potential: A Model for Glasslike Dynamics in Confined Liquid Crystals. Physical Review Letters, 1998, 80, 1449-1452.	7.8	25
34	Q-tensor model of twist-bend and splay nematic phases. Physical Review E, 2020, 101, 022704.	2.1	24
35	Characterization of the pyroelectric effect inYBa2Cu3O7â^Î´. Physical Review B, 1993, 48, 16634-16640.	3.2	23
36	Acrylate-Based Hybrid Sol-Gel Coating for Corrosion Protection of AA7075-T6 in Aircraft Applications: The Effect of Copolymerization Time. Polymers, 2020, 12, 948.	4.5	22

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37	Superparamagnetic nanocomposite particles synthesized using the mini-emulsion technique. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2010, 366, 113-119.	4.7	20
38	Ferromagnetic liquid crystals for magnetic field visualisation. Liquid Crystals, 2015, 42, 1684-1688.	2.2	20
39	Anisotropic microrheological properties of chain-forming magnetic fluids. Soft Matter, 2011, 7, 125-131.	2.7	19
40	Magnetically controllable random laser in ferromagnetic nematic liquid crystals. Optics Express, 2019, 27, 24426.	3.4	19
41	Director reorientation dynamics of ferromagnetic nematic liquid crystals. Soft Matter, 2018, 14, 7180-7189.	2.7	17
42	Rotational diffusion in a bistable potential. Europhysics Letters, 2002, 59, 337-343.	2.0	16
43	Evolution of nematic and ferromagnetic ordering in suspensions of magnetic nanoplatelets. Soft Matter, 2019, 15, 5412-5420.	2.7	16
44	Magnetic Nanoplatelets for High Contrast Cardiovascular Imaging by Magnetically Modulated Optical Coherence Tomography. ChemPhotoChem, 2019, 3, 529-539.	3.0	16
45	Critical behavior of director fluctuations in suspensions of ferroelectric nanoparticles in liquid crystals at the nematic to smectic-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>A</mml:mi></mml:math>phase transition. Physical Review E, 2012, 85, 021705.	2.1	15
46	Effect of inorganic 1D nanoparticles on electrooptic properties of 5CB liquid crystal. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 2328-2334.	1.8	14
47	Influence of the Morphology of Ferrite Nanoparticles on the Directed Assembly into Magnetically Anisotropic Hierarchical Structures. Langmuir, 2014, 30, 6588-6595.	3.5	14
48	Electrostatic Interactions between Barium Hexaferrite Nanoplatelets in Alcohol Suspensions. Journal of Physical Chemistry C, 2019, 123, 23272-23279.	3.1	13
49	Observation of thermal fluctuations of disclination lines in a nematic liquid crystal. Physical Review E, 2004, 69, 021711.	2.1	12
50	Magnetically tunable optical diffraction gratings based on a ferromagnetic liquid crystal. Optics Express, 2019, 27, 8900.	3.4	12
51	Anisotropic diffusion of light in polymer dispersed liquid crystals. Physical Review E, 2007, 75, 011705.	2.1	11
52	Nanocomposites comprised of homogeneously dispersed magnetic iron-oxide nanoparticles and poly(methyl methacrylate). Beilstein Journal of Nanotechnology, 2018, 9, 1613-1622.	2.8	11
53	Comparison of dynamic behavior of ferroelectric and ferromagnetic nematic suspensions. Journal of Molecular Liquids, 2018, 267, 377-383.	4.9	9
54	Formation of Fe(III)-phosphonate Coatings on Barium Hexaferrite Nanoplatelets for Porous Nanomagnets. ACS Omega, 2020, 5, 14086-14095.	3.5	9

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55	Dynamical Behavior of Liquid Crystals Containing Dispersed Silica Particles Near Sm A - N and N - I Phase Transitions. Molecular Crystals and Liquid Crystals, 1999, 331, 81-87.	0.3	8
56	Light Scattering Intensity Correlation Function in Disordered Nematic Systems. Molecular Crystals and Liquid Crystals, 1996, 282, 35-41.	0.3	6
57	Flow and anchoring effects on nematic fluctuations in confined geometry. Liquid Crystals, 2013, 40, 1646-1654.	2.2	6
58	Isotropic to nematic transition in alcohol ferrofluids of barium hexaferrite nanoplatelets. Journal of Molecular Liquids, 2022, 348, 118038.	4.9	6
59	Dynamic Light Scattering in Nematic Liquid Crystals in Confined Geometries. Molecular Crystals and Liquid Crystals, 1998, 320, 287-299.	0.3	5
60	Visco-Elastic Properties of Nematic-MoS₂Nanotubes Mixtures. Molecular Crystals and Liquid Crystals, 2005, 435, 163/[823]-172/[832].	0.9	5
61	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
62	Dynamic response of a nematic liquid crystal in silica aerogel in an external electric field. Physical Review E, 1998, 57, 6732-6736.	2.1	4
63	Blue Phase III: Topological Fluid of Skyrmions. Physical Review X, 2022, 12, .	8.9	3
64	Magnetic dynamics in suspensions of ferrimagnetic platelets. Journal of Molecular Liquids, 2022, 360, 119484.	4.9	3
65	Optical second harmonic generation in a ferromagnetic liquid crystal. Soft Matter, 2019, 15, 8758-8765.	2.7	2
66	New Insights into Amino-Functionalization of Magnetic Nanoplatelets with Silanes and Phosphonates. Nanomaterials, 2022, 12, 2123.	4.1	1
67	Rotational diffusion and orientational fluctuations in polymer-dispersed liquid crystals. , 1998, , .		0
68	Thermal Fluctuations of Disclination Lines in a Thin Nematic Film. Molecular Crystals and Liquid Crystals, 2003, 395, 311-316.	0.9	0
69	Band Structure of Orientational Modes in Quasiperiodic Mesoscale Liquid-Crystalâ€“Polymer Dispersions. Physical Review Letters, 2007, 98, .	7.8	0
70	Functionalization of iron oxide nanoparticles with methacrylate-based monomers for preparation of nanocomposites. AIP Conference Proceedings, 2018, , .	0.4	0
71	Magnetic Nanoplatelets for High Contrast Cardiovascular Imaging by Magnetically Modulated Optical Coherence Tomography. ChemPhotoChem, 2019, 3, 503-503.	3.0	0
72	Conference report FLC 2019: frontiers of chirality and polarity in soft matter. Liquid Crystals Today, 2019, 28, 74-75.	2.3	0

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73	Experimental analysis of the stability of ferrofluids based on Iron Oxide powder. InÅ¼ynieria BezpieczeÅ„stwa ObiektÃ³w Antropogenicznych, 2021, , 1-6.	0.2	0
74	Preparation of Barium-Hexaferrite/Gold Janus Nanoplatelets Using the Pickering Emulsion Method. Nanomaterials, 2021, 11, 2797.	4.1	0
75	Dynamic Light Scattering in Confined Liquid Crystals. , 2003, , 498-517.		0
76	Liquid Crystals: The Beautiful State of Matter. Alternator, 0, 4, .	0.0	0