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List of Publications by Year
in descending order

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54 papers	1,607 citations	279798 23 h-index	302126 39 g-index
54 all docs	54 docs citations	54 times ranked	1098 citing authors

#	Article	IF	Citations
1	Reconfigurable Knots and Links in Chiral Nematic Colloids. Science, 2011, 333, 62-65.	12.6	358
2	Topological zoo of free-standing knots in confined chiral nematic fluids. Nature Communications, 2014, 5, 3057.	12.8	96
3	Colloidal entanglement in highly twisted chiral nematic colloids: Twisted loops, Hopf links, and trefoil knots. Physical Review E, 2011, 84, 031703.	2.1	74
4	Light-controlled topological charge in a nematic liquid crystal. Nature Physics, 2015, 11, 183-187.	16.7	68
5	Points, skyrmions and torons in chiral nematic droplets. Scientific Reports, 2016, 6, 26361.	3.3	68
6	Nematic Braids: Topological Invariants and Rewiring of Disclinations. Physical Review Letters, 2011, 106, 177801.	7.8	54
7	Mosaics of topological defects in micropatterned liquid crystal textures. Science Advances, 2018, 4, eaau8064.	10.3	50
8	Knot theory realizations in nematic colloids. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 1675-1680.	7.1	48
9	Hidden topological constellations and polyvalent charges in chiral nematic droplets. Nature Communications, 2017, 8, 14594.	12.8	47
10	Topological defects in cholesteric liquid crystal shells. Soft Matter, 2016, 12, 9280-9288.	2.7	45
11	Waltzing route toward double-helix formation in cholesteric shells. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 9469-9474.	7.1	42
12	Three-Dimensional Active Defect Loops. Physical Review Letters, 2020, 124, 088001.	7.8	36
13	Sensing surface morphology of biofibers by decorating spider silk and cellulosic filaments with nematic microdroplets. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 1174-1179.	7.1	31
14	Field-controlled structures in ferromagnetic cholesteric liquid crystals. Science Advances, 2017, 3, e1701336.	10.3	31
15	Topology and geometry of nematic braids. Physics Reports, 2014, 538, 1-37.	25.6	30
16	Microfluidic control over topological states in channel-confined nematic flows. Nature Communications, 2020, 11, 59.	12.8	30
17	Visualisation methods for complex nematic fields. Liquid Crystals, 2013, 40, 1759-1768.	2.2	29
18	Ring around the colloid. Soft Matter, 2013, 9, 9099.	2.7	26

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19	Topology-commanded optical properties of bistable electric-field-induced torons in cholesteric bubble domains. Scientific Reports, 2017, 7, 16149.	3.3	26
20	Sculpting stable structures in pure liquids. Science Advances, 2019, 5, eaav4283.	10.3	25
21	Self-assembly of skyrmion-dressed chiral nematic colloids with tangential anchoring. Physical Review E, 2014, 89, 060502.	2.1	24
22	Topological Switching and Orbiting Dynamics of Colloidal Spheres Dressed with Chiral Nematic Solitons. Scientific Reports, 2015, 4, 7337.	3.3	24
23	Self-shaping liquid crystal droplets by balancing bulk elasticity and interfacial tension. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	24
24	Nematic disclinations as twisted ribbons. Physical Review E, 2011, 84, 051702.	2.1	20
25	Stability and rewiring of nematic braids in chiral nematic colloids. Soft Matter, 2012, 8, 8595.	2.7	19
26	Topology of Three-Dimensional Active Nematic Turbulence Confined to Droplets. Physical Review X, 2019, 9, .	8.9	19
27	Topological and geometric decomposition of nematic textures. Physical Review E, 2012, 85, 031701.	2.1	18
28	Geometry of the Cholesteric Phase. Physical Review X, 2014, 4, .	8.9	18
29	Persistent quasiplanar nematic texture: Its properties and topological defects. Physical Review E, 2016, 94, 042706.	2.1	18
30	Periodic Arrays of Chiral Domains Generated from the Self-Assembly of Micropatterned Achiral Lyotropic Chromonic Liquid Crystal. ACS Central Science, 2020, 6, 1964-1970.	11.3	18
31	Quaternions and hybrid nematic disclinations. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2013, 469, 20130204.	2.1	15
32	Elementary building blocks of nematic disclination networks in densely packed 3D colloidal lattices. Soft Matter, 2013, 9, 8203.	2.7	15
33	Ray optics simulations of polarised microscopy textures in chiral nematic droplets. Liquid Crystals, 2017, 44, 679-687.	2.2	14
34	Point Defects, Topological Chirality, and Singularity Theory in Cholesteric Liquid-Crystal Droplets. Physical Review X, 2019, 9, .	8.9	14
35	Introduction to Colloidal and Microfluidic Nematic Microstructures. Crystals, 2021, 11, 956.	2.2	14
36	Hedgehogs in the dowser state. European Physical Journal E, 2016, 39, 121.	1.6	13

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37	Spherical structure factor and classification of hyperuniformity on the sphere. Physical Review E, 2019, 99, 032601.	2.1	12
38	Orientation, elastic interaction and magnetic response of asymmetric colloids in a nematic liquid crystal. Scientific Reports, 2019, 9, 81.	3.3	11
39	Janus Nematic Colloids with Designable Valence. Materials, 2014, 7, 4272-4281.	2.9	10
40	Spherical microparticles with Saturn ring defects and their self-assembly across the nematic to smectic-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>A</mml:mi></mml:math>phase transition. Physical Review E, 2015, 92, 052501.	2.1	10
41	Particles with changeable topology in nematic colloids. Journal of Physics Condensed Matter, 2015, 27, 354111.	1.8	10
42	Sensing and tuning microfiber chirality with nematic chirogyral effect. Physical Review E, 2016, 93, 032703.	2.1	9
43	Singular values, nematic disclinations, and emergent biaxiality. Physical Review E, 2013, 87, 050504.	2.1	8
44	From coffee stains to uniform deposits: Significance of the contact-line mobility. Journal of Colloid and Interface Science, 2022, 608, 1718-1727.	9.4	7
45	Nematic liquid crystal gyroids as photonic crystals. Liquid Crystals, 2016, 43, 2320-2331.	2.2	6
46	Orientational ordering of point dipoles on a sphere. Physical Review B, 2020, 102, .	3.2	6
47	Spotting plantsâ€™ microfilament morphologies and nanostructures. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 13188-13193.	7.1	5
48	One-dimensional simulation of thin liquid-film-edge retraction. Physical Review E, 2010, 82, 056307.	2.1	3
49	Action of fields on captive disclination loops. European Physical Journal E, 2017, 40, 28.	1.6	3
50	Interactions on the Interface between Two Liquid Crystal Materials. Crystals, 2020, 10, 393.	2.2	3
51	Symmetry breaking of dipole orientations on Caspar-Klug lattices. Physical Review Research, 2020, 2, .	3.6	2
52	Global order parameters for particle distributions on the sphere. Physics of Fluids, 2021, 33, 047109.	4.0	1
53	Long-range order in quadrupolar systems on spherical surfaces. Soft Matter, 2021, 17, 4874-4883.	2.7	0
54	Measure of overlap between two arbitrary ellipses on a sphere. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2022, 478, .	2.1	0