

Charles Rosenblatt

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

106
papers

1,840
citations

26
h-index

36
g-index

110
ext. papers

1,929
ext. citations

3.5
avg, IF

4.59
L-index

#	Paper	IF	Citations
106	Co-revolving topological defects in a nematic liquid crystal. <i>Soft Matter</i> , 2021 , 17, 9616-9623	3.6	0
105	Spontaneous Anchoring-Mediated Topography of an Orientable Fluid. <i>Physical Review Letters</i> , 2021 , 126, 057803	7.4	2
104	Transition from escaped to decomposed nematic defects, and vice versa. <i>Soft Matter</i> , 2020 , 16, 4814-4826	3.6	13
103	Multiple Twisted Chiral Nematic Structures in Cylindrical Confinement. <i>Crystals</i> , 2020 , 10, 576	2.3	2
102	Electric field-driven reconfigurable multistable topological defect patterns. <i>Physical Review Research</i> , 2020 , 2,	3.9	12
101	Conference report on the 2nd international online conference on crystals 10-20 november 2020. <i>Liquid Crystals Today</i> , 2020 , 29, 84-84	1.9	
100	Electric field-induced crossover from 3D to 2D topological defects in a nematic liquid crystal: experimental verification. <i>Soft Matter</i> , 2020 , 16, 642-650	3.6	7
99	Annihilation of Highly-Charged Topological Defects. <i>Crystals</i> , 2020 , 10, 673	2.3	
98	Chiral organosilica particles and their use as inducers of conformational deracemization of liquid crystal phases. <i>Chemical Physics Letters</i> , 2018 , 696, 112-118	2.5	
97	Nematic topological defects positionally controlled by geometry and external fields. <i>Beilstein Journal of Nanotechnology</i> , 2018 , 9, 109-118	3	3
96	Chiral Polymeric Nanocapsules and Their Use for Conformational Deracemization of Liquid Crystals. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 17936-17941	3.8	3
95	Observations of a streak texture in the hybrid-aligned smectic-C phase. <i>Soft Matter</i> , 2018 , 14, 460-469	3.6	6
94	Decomposition vs. escape of topological defects in a nematic liquid crystal. <i>Soft Matter</i> , 2017 , 13, 8442-8450	3.6	9
93	Decomposition of strongly charged topological defects. <i>Physical Review E</i> , 2017 , 95, 042702	2.4	16
92	Influence of a dispersion of magnetic and nonmagnetic nanoparticles on the magnetic Fredericksz transition of the liquid crystal 5CB. <i>Physical Review E</i> , 2017 , 96, 012706	2.4	24
91	Persistence of Smectic-A Oily Streaks into the Nematic Phase by UV Irradiation of Reactive Mesogens. <i>Crystals</i> , 2017 , 7, 358	2.3	3
90	Interface coupling and growth rate measurements in multilayer Rayleigh-Taylor instabilities. <i>Physical Review Fluids</i> , 2017 , 2,	2.8	5

89	Electroclinic effect in a chiral paranematic liquid-crystal layer above the bulk nematic-to-isotropic transition temperature. <i>Physical Review E</i> , 2016 , 93, 022701	2.4	
88	Chiral oily streaks in a smectic-A liquid crystal. <i>Soft Matter</i> , 2016 , 12, 6662-8	3.6	7
87	Chiral periodic mesoporous organosilica in a smectic-A liquid crystal: source of the electrooptic response. <i>Liquid Crystals</i> , 2016 , 43, 497-504	2.3	5
86	Liquid crystal quenched orientational disorder at an AFM-scribed alignment surface. <i>Soft Matter</i> , 2015 , 11, 2220-7	3.6	
85	Optical imaging of liquid crystals at the nanoscale. <i>ChemPhysChem</i> , 2014 , 15, 1261-9	3.2	2
84	Studies of nanocomposites of carbon nanotubes and a negative dielectric anisotropy liquid crystal. <i>Journal of Chemical Physics</i> , 2014 , 140, 104908	3.9	21
83	Creating arbitrary arrays of two-dimensional topological defects. <i>Physical Review E</i> , 2014 , 90, 052501	2.4	47
82	Gold nanoparticle self-assembly moderated by a cholesteric liquid crystal. <i>Soft Matter</i> , 2013 , 9, 9366	3.6	32
81	Nematic molecular core flexibility and chiral induction. <i>Physical Review E</i> , 2013 , 88, 042501	2.4	1
80	Nematic twist cell: Strong chirality induced at the surfaces. <i>Applied Physics Letters</i> , 2013 , 102, 134101	3.4	4
79	Probing the pore structure of a chiral periodic mesoporous organosilica using liquid crystals. <i>Journal of Materials Chemistry</i> , 2012 , 22, 15255		15
78	Chiral induction in thioester and oxoester liquid crystals by dispersed carbon nanotubes. <i>Liquid Crystals</i> , 2012 , 39, 199-204	2.3	30
77	Surface-induced weak orientational order and role of isotropic-nematic interface fluctuations in the appearance of an induced nematic film. <i>European Physical Journal E</i> , 2012 , 35, 87	1.5	7
76	Surface topography and rotational symmetry breaking. <i>Physical Review E</i> , 2012 , 86, 011711	2.4	3
75	Spatially controllable surface chirality at the nanoscale. <i>Europhysics Letters</i> , 2011 , 96, 26001	1.6	3
74	Deforming static fluid interfaces with magnetic fields: application to the Rayleigh-Taylor instability. <i>Experiments in Fluids</i> , 2011 , 51, 1073-1083	2.5	9
73	Nematic electroclinic effect in a carbon-nanotube-doped achiral liquid crystal. <i>Physical Review E</i> , 2011 , 83, 041707	2.4	26
72	Macroscopic torsional strain and induced molecular conformational deracemization. <i>Physical Review Letters</i> , 2011 , 107, 237804	7.4	20

71	Carbon nanotube-induced macroscopic helical twist in an achiral nematic liquid crystal. <i>Journal of Applied Physics</i> , 2011 , 109, 083518	2.5	35
70	Mechanically generated surface chirality: Control of chiral strength. <i>Applied Physics Letters</i> , 2010 , 97, 121905	3.4	4
69	Carbon nanotube-induced chirality in an achiral liquid crystal. <i>Applied Physics Letters</i> , 2010 , 97, 121908	3.4	37
68	Direct visualization and measurement of the extrapolation length on cooling toward the nematic-smectic-A phase transition temperature. <i>Physical Review E</i> , 2010 , 81, 051708	2.4	3
67	Mechanically generated surface chirality at the nanoscale. <i>Physical Review Letters</i> , 2010 , 104, 257801	7.4	31
66	Patterning-induced surface chirality and modulation of director twist in a nematic cell. <i>Physical Review E</i> , 2009 , 80, 060701	2.4	9
65	Direct measurement of surface-induced orientational order parameter profile above the nematic-isotropic phase transition temperature. <i>Physical Review Letters</i> , 2009 , 102, 167801	7.4	20
64	52.4L: Late News Paper: Continuous Control of Spatially-Homogeneous Nematic Pretilt Angle Using Mixtures of Two Polyimide Alignment Materials. <i>Digest of Technical Papers SID International Symposium</i> , 2009 , 40, 787	0.5	
63	Full control of nematic pretilt angle using spatially homogeneous mixtures of two polyimide alignment materials. <i>Journal of Applied Physics</i> , 2009 , 105, 023508	2.5	29
62	Optical nanotomography of anisotropic fluids. <i>Nature Physics</i> , 2008 , 4, 869-872	16.2	18
61	Nanoscale alignment and optical nanoimaging of a birefringent liquid. <i>Nanotechnology</i> , 2008 , 19, 325709	3.4	11
60	Naturally occurring reverse tilt domains in a high-pretilt alignment nematic liquid crystal. <i>Physical Review E</i> , 2007 , 76, 021702	2.4	8
59	Bend-induced melting of the smectic-A phase: analogy to a type-I superconductor. <i>Physical Review Letters</i> , 2006 , 97, 167802	7.4	9
58	Rayleigh-Taylor instability for immiscible fluids of arbitrary viscosities: a magnetic levitation investigation and theoretical model. <i>Physical Review Letters</i> , 2006 , 96, 104501	7.4	26
57	Possible structures for the lamellar isotropic (Lam-I) and lamellar nematic (Lam-N) liquid crystalline phases. <i>Liquid Crystals</i> , 2005 , 32, 55-61	2.3	35
56	Large polar pretilt for the liquid crystal homologous series alkylcyanobiphenyl. <i>Applied Physics Letters</i> , 2005 , 86, 011908	3.4	21
55	Planar degenerate substrate for micro- and nanopatterned nematic liquid-crystal cells. <i>Journal of Applied Physics</i> , 2005 , 98, 034303	2.5	22
54	Nanostructured Surfaces: Scientific and Optical Device Applications. <i>Molecular Crystals and Liquid Crystals</i> , 2004 , 412, 117-134	0.5	6

53	Chiral-Induced Polarization at a Tilted Nematic Substrate Interface. <i>Ferroelectrics</i> , 2004 , 311, 33-39	0.6	
52	Light scattering investigation above the nematic-smectic-A phase transition in binary mixtures of calamitic and bent-core mesogens. <i>Physical Review E</i> , 2003 , 68, 031703	2.4	30
51	Resonance behavior of liquid bridges under axial and lateral oscillating total body forces. <i>Experiments in Fluids</i> , 2002 , 33, 503-507	2.5	30
50	Depression of the nematic-isotropic phase transition temperature at nanopatterned surfaces. <i>Physical Review E</i> , 2002 , 66, 041502	2.4	16
49	Large, continuously controllable nematic pretilt from vertical orientation. <i>Applied Physics Letters</i> , 2001 , 79, 2543-2545	3.4	59
48	Planar nematic anchoring due to a periodic surface potential. <i>Journal of Applied Physics</i> , 2001 , 89, 4747-4751	2.5	28
47	Velocity of an electric-field-induced synclonic solitary wave invading the anticlinic liquid crystal phase. <i>Physical Review E</i> , 2001 , 63, 062703	2.4	2
46	Ultrahigh-resolution liquid crystal display with gray scale. <i>Applied Physics Letters</i> , 2000 , 76, 1240-1242	3.4	48
45	Freedericksz transition in an anticlinic liquid crystal. <i>Physical Review E</i> , 2000 , 62, 8152-8	2.4	10
44	Electric field-induced acoustic-optic mode coupling in an anticlinic liquid crystal. <i>Physical Review E</i> , 2000 , 62, R5911-4	2.4	1
43	Freedericksz transition in an anticlinic liquid crystal. <i>Physical Review Letters</i> , 2000 , 84, 4140-3	7.4	27
42	Temperature effect on a rubbed polyimide alignment layer. <i>Journal of Applied Physics</i> , 2000 , 87, 155-158	2.5	21
41	Collapse dynamics of liquid bridges investigated by time-varying magnetic levitation. <i>Physical Review Letters</i> , 2000 , 84, 338-41	7.4	29
40	The Appearance of Ferrielectric Phases in Confined Liquid Crystal Studied by Photon Correlation Spectroscopy. <i>Molecular Crystals and Liquid Crystals</i> , 1999 , 328, 93-100		
39	Pretransitional behavior above the nematic-isotropic phase transition of an auxetic trimer liquid crystal. <i>Physical Review E</i> , 1999 , 60, 4980-2	2.4	11
38	History-dependent orientational order of rubbed polyimide for liquid-crystal alignment. <i>Applied Physics Letters</i> , 1999 , 75, 3623-3625	3.4	19
37	Stability of liquid crystalline bridges. <i>Physics of Fluids</i> , 1999 , 11, 491-493	4.4	21
36	Molecular character of sharkskin phenomenon in metallocene linear low density polyethylenes. <i>Macromolecular Chemistry and Physics</i> , 1998 , 199, 2113-2118	2.6	9

- 35 Highly anisotropic elasticity of a dendrimeric liquid crystal. *European Physical Journal B*, **1998**, 5, 251-255. 1.2 7
- 34 Correlation between rub-induced grooves in a polyimide-treated substrate and microstructure of rubbing fiber: An atomic force microscopy study. *Journal of Applied Physics*, **1998**, 83, 7649-7652 2.5 38
- 33 Paramagnetic liquid bridge in a gravity-compensating magnetic field. *Physics of Fluids*, **1998**, 10, 2208-2214. 1.4 28
- 32 Rubbing strength dependence of surface interaction potential and surface-induced order above the nematic-isotropic transition. *Journal of Applied Physics*, **1998**, 84, 6027-6033 2.5 20
- 31 Optical retardation of rub-induced scratches in a polyimide-treated substrate. *Applied Physics Letters*, **1998**, 72, 1917-1919 3.4 11
- 30 Appearance of Ferrielectric Phases in a Confined Liquid Crystal Investigated by Photon Correlation Spectroscopy. *Physical Review Letters*, **1998**, 81, 2699-2702 7.4 20
- 29 Orientational susceptibility and elastic constants near the nematic-isotropic phase transition for trimers with terminal-lateral-lateral-terminal connections. *Physical Review E*, **1998**, 58, 2041-2046 2.4 7
- 28 Kinetics of Phase Transition in an Anticlinic Liquid Crystal Induced by a Uniform Temperature Field: Growth in One Dimension. *Physical Review Letters*, **1998**, 80, 4478-4481 7.4 10
- 27 Magnetic levitation of liquid crystals. *Liquid Crystals*, **1997**, 23, 547-550 2.3 6
- 26 Dendrimeric Liquid Crystals: Isotropic-Nematic Pretransitional Behavior. *Macromolecules*, **1996**, 29, 7813-7819 5.5 32
- 25 Magnetic field-mediated alignment of a nematic liquid crystal at a polymer surface exposed to ultraviolet light. *Applied Physics Letters*, **1996**, 68, 2201-2203 3.4 12
- 24 Solitary Waves in an Antiferroelectric Liquid Crystal. *Molecular Crystals and Liquid Crystals*, **1996**, 288, 73-82 2.3 22
- 23 Chirality, surface anchoring, and the cholesteric-smectic A phase transition. *Liquid Crystals*, **1995**, 18, 251-256 2.3 5
- 22 A simple and reliable method for measuring the liquid crystal anchoring strength coefficient. *Liquid Crystals*, **1995**, 19, 427-431 2.3 22
- 21 Atomic force microscopy characterization and liquid crystal aligning effect of polymerizable diacetylene Langmuir Blodgett films. *Liquid Crystals*, **1995**, 19, 489-496 2.3 5
- 20 Homeotropic, rub-free liquid-crystal light shutter. *Applied Physics Letters*, **1994**, 65, 118-120 3.4 17
- 19 Vanishing Fredericksz transition threshold voltage in a chiral nematic liquid crystal. *Applied Physics Letters*, **1994**, 64, 1741-1743 3.4 27
- 18 Polarization-induced renormalization of the B1 elastic modulus in a ferroelectric liquid crystal. *Physical Review Letters*, **1992**, 68, 3575-3578 7.4 33

17	Observation of a Nematic Phase in an Aqueous Suspension of Phospholipid Tubules. <i>Molecular Crystals and Liquid Crystals</i> , 1992 , 210, 169-177		8
16	Comparison of magnetic and electric field induced switching in polymer dispersed liquid crystal films. <i>Applied Physics Letters</i> , 1992 , 60, 3132-3134	3-4	21
15	Anchoring strength coefficient of a monomer and its dimer at a polymer-coated interface. <i>Liquid Crystals</i> , 1992 , 11, 63-71	2-3	8
14	Anomaly in the dynamic behavior of the electroclinic effect below the nematic-smectic-A phase transition. <i>Physical Review A</i> , 1991 , 43, 852-857	2-6	13
13	Dynamics of the nematic-electroclinic effect. <i>Physical Review A</i> , 1991 , 43, 7109-7112	2-6	16
12	Nematic-isotropic pretransitional behaviour in dimers with odd and even spacer lengths. <i>Liquid Crystals</i> , 1991 , 9, 831-838	2-3	5
11	Nematic electroclinic effect. <i>Physical Review A</i> , 1990 , 41, 1997-2004	2-6	37
10	Ferrofluid-enhanced orientation of large anisometric colloids. <i>Applied Physics Letters</i> , 1990 , 56, 590-592	3-4	5
9	Splay elasticity in an oligomeric liquid crystal. <i>Liquid Crystals</i> , 1990 , 8, 437-443	2-3	7
8	Behaviour of the anchoring strength coefficient near a structural transition at a nematic-substrate interface. <i>Liquid Crystals</i> , 1990 , 7, 353-360	2-3	41
7	Linear electroclinic effect in a chiral nematic liquid crystal. <i>Physical Review Letters</i> , 1989 , 62, 796-799	7-4	42
6	Counterion unbinding in a micellar liquid crystal in the presence of an alcohol. <i>Journal of Chemical Physics</i> , 1988 , 89, 5033-5037	3-9	7
5	Magnetic-susceptibility measurements below a nearly-second-order nematic-isotropic phase transition in a lyotropic liquid crystal. <i>Physical Review A</i> , 1985 , 32, 1115-1121	2-6	26
4	Liquid-Crystal Fréedericksz Transition and Surface-Induced Smectic Ordering. <i>Physical Review Letters</i> , 1984 , 53, 791-794	7-4	39
3	Temperature dependence of the anchoring strength coefficient at a nematic liquid crystal-wall interface. <i>Journal De Physique</i> , 1984 , 45, 1087-1091		98
2	Freely Suspended Ferroelectric Liquid-Crystal Films: Absolute Measurements of Polarization, Elastic Constants, and Viscosities. <i>Physical Review Letters</i> , 1979 , 42, 1220-1223	7-4	148
1	Manipulation of mechanically nanopatterned line defect assemblies in plane-parallel nematic liquid crystals. <i>Liquid Crystals Reviews</i> , 1-25	2-8	1