Charles Rosenblatt

List of Publications by Year
in descending order

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109 papers	2,044 citations	201385 27 h-index	301761 39 g-index
110 all docs	110 docs citations	110 times ranked	1099 citing authors

#	Article	IF	Citations
1	Freely Suspended Ferroelectric Liquid-Crystal Films: Absolute Measurements of Polarization, Elastic Constants, and Viscosities. Physical Review Letters, 1979, 42, 1220-1223.	2.9	163
2	Temperature dependence of the anchoring strength coefficient at a nematic liquid crystal-wall interface. Journal De Physique, 1984, 45, 1087-1091.	1.8	99
3	Creating arbitrary arrays of two-dimensional topological defects. Physical Review E, 2014, 90, 052501.	0.8	67
4	Large, continuously controllable nematic pretilt from vertical orientation. Applied Physics Letters, 2001, 79, 2543-2545.	1.5	62
5	Ultrahigh-resolution liquid crystal display with gray scale. Applied Physics Letters, 2000, 76, 1240-1242.	1.5	52
6	Behaviour of the anchoring strength coefficient near a structural transition at a nematicâ€“substrate interface. Liquid Crystals, 1990, 7, 353-360.	0.9	44
7	Linear Electroclinic Effect in a Chiral Nematic Liquid Crystal. Physical Review Letters, 1989, 62, 796-799.	2.9	43
8	Nematic electroclinic effect. Physical Review A, 1990, 41, 1997-2004.	1.0	40
9	Dendrimeric Liquid Crystals:Â Isotropicâ^'Nematic Pretransitional Behavior. Macromolecules, 1996, 29, 7813-7819.	2.2	40
10	Liquid-Crystal FrÃ©edericksz Transition and Surface-Induced Smectic Ordering. Physical Review Letters, 1984, 53, 791-794.	2.9	39
11	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.	1.1	39
12	Carbon nanotube-induced chirality in an achiral liquid crystal. Applied Physics Letters, 2010, 97, 121908.	1.5	38
13	Carbon nanotube-induced macroscopic helical twist in an achiral nematic liquid crystal. Journal of Applied Physics, 2011, 109, 083518.	1.1	38
14	Gold nanoparticle self-assembly moderated by a cholesteric liquid crystal. Soft Matter, 2013, 9, 9366.	1.2	37
15	Polarization-induced renormalization of theB1elastic modulus in a ferroelectric liquid crystal. Physical Review Letters, 1992, 68, 3575-3578.	2.9	36
16	Possible structures for the lamellarâ€“isotropic (Lamâ€I) and lamellarâ€“nematic (Lamâ€N) liquid crystalline phases. Liquid Crystals, 2005, 32, 55-61.	0.9	35
17	Resonance behavior of liquid bridges under axial and lateral oscillating total body forces. Experiments in Fluids, 2002, 33, 503-507.	1.1	34
18	Collapse Dynamics of Liquid Bridges Investigated by Time-Varying Magnetic Levitation. Physical Review Letters, 2000, 84, 338-341.	2.9	33

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19	Chiral induction in thioester and oxoester liquid crystals by dispersed carbon nanotubes. Liquid Crystals, 2012, 39, 199-204.	0.9	33
20	Influence of a dispersion of magnetic and nonmagnetic nanoparticles on the magnetic Fredericksz transition of the liquid crystal 5CB. Physical Review E, 2017, 96, 012706.	0.8	33
21	Paramagnetic liquid bridge in a gravity-compensating magnetic field. Physics of Fluids, 1998, 10, 2208-2211.	1.6	32
22	Vanishing Freedericksz transition threshold voltage in a chiral nematic liquid crystal. Applied Physics Letters, 1994, 64, 1741-1743.	1.5	31
23	FrÃ©edericksz Transition in an Anticlinic Liquid Crystal. Physical Review Letters, 2000, 84, 4140-4143.	2.9	31
24	Mechanically Generated Surface Chirality at the Nanoscale. Physical Review Letters, 2010, 104, 257801.	2.9	31
25	Light scattering investigation above the nematicâ€“smectic-Aphase transition in binary mixtures of calamitic and bent-core mesogens. Physical Review E, 2003, 68, 031703.	0.8	30
26	Full control of nematic pretilt angle using spatially homogeneous mixtures of two polyimide alignment materials. Journal of Applied Physics, 2009, 105, 023508.	1.1	29
27	Planar nematic anchoring due to a periodic surface potential. Journal of Applied Physics, 2001, 89, 4747-4751.	1.1	28
28	Magnetic-susceptibility measurements below a nearly-second-order nematic-isotropic phase transition in a lyotropic liquid crystal. Physical Review A, 1985, 32, 1115-1121.	1.0	27
29	Stability of liquid crystalline bridges. Physics of Fluids, 1999, 11, 491-493.	1.6	27
30	Nematic electroclinic effect in a carbon-nanotube-doped achiral liquid crystal. Physical Review E, 2011, 83, 041707.	0.8	27
31	Rayleigh-Taylor Instability for Immiscible Fluids of Arbitrary Viscosities: A Magnetic Levitation Investigation and Theoretical Model. Physical Review Letters, 2006, 96, 104501.	2.9	26
32	Electric field driven reconfigurable multistable topological defect patterns. Physical Review Research, 2020, 2, .	1.3	25
33	Comparison of magnetic and electric field induced switching in polymer dispersed liquid crystal films. Applied Physics Letters, 1992, 60, 3132-3134.	1.5	23
34	A simple and reliable method for measuring the liquid crystal anchoring strength coefficient. Liquid Crystals, 1995, 19, 427-431.	0.9	23
35	Planar degenerate substrate for micro- and nanopatterned nematic liquid-crystal cells. Journal of Applied Physics, 2005, 98, 034303.	1.1	23
36	Studies of nanocomposites of carbon nanotubes and a negative dielectric anisotropy liquid crystal. Journal of Chemical Physics, 2014, 140, 104908.	1.2	23

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37	Homeotropic, rubâ€free liquidâ€crystal light shutter. Applied Physics Letters, 1994, 65, 118-120.	1.5	22
38	Temperature effect on a rubbed polyimide alignment layer. Journal of Applied Physics, 2000, 87, 155-158.	1.1	22
39	Decomposition of strongly charged topological defects. Physical Review E, 2017, 95, 042702.	0.8	22
40	Appearance of Ferrielectric Phases in a Confined Liquid Crystal Investigated by Photon Correlation Spectroscopy. Physical Review Letters, 1998, 81, 2699-2702.	2.9	21
41	Large polar pretilt for the liquid crystal homologous series alkylcyanobiphenyl. Applied Physics Letters, 2005, 86, 011908.	1.5	21
42	Macroscopic Torsional Strain and Induced Molecular Conformational Deracemization. Physical Review Letters, 2011, 107, 237804.	2.9	21
43	Rubbing strength dependence of surface interaction potential and surface-induced order above the nematicâ€“isotropic transition. Journal of Applied Physics, 1998, 84, 6027-6033.	1.1	20
44	Optical nanotomography of anisotropicÂfluids. Nature Physics, 2008, 4, 869-872.	6.5	20
45	Direct Measurement of Surface-Induced Orientational Order Parameter Profile above the Nematic-Isotropic Phase Transition Temperature. Physical Review Letters, 2009, 102, 167801.	2.9	20
46	History-dependent orientational order of rubbed polyimide for liquid-crystal alignment. Applied Physics Letters, 1999, 75, 3623-3625.	1.5	19
47	Dynamics of the nematic-electroclinic effect. Physical Review A, 1991, 43, 7109-7112.	1.0	17
48	Depression of the nematic-isotropic phase transition temperature at nanopatterned surfaces. Physical Review E, 2002, 66, 041502.	0.8	17
49	Probing the pore structure of a chiral periodic mesoporous organosilica using liquid crystals. Journal of Materials Chemistry, 2012, 22, 15255.	6.7	15
50	Transition from escaped to decomposed nematic defects, and vice versa. Soft Matter, 2020, 16, 4814-4822.	1.2	15
51	Anomaly in the dynamic behavior of the electroclinic effect below the nematicâ€“smectic-A phase transition. Physical Review A, 1991, 43, 852-857.	1.0	14
52	Pretransitional behavior above the nematic-isotropic phase transition of an auxetic trimer liquid crystal. Physical Review E, 1999, 60, 4980-4982.	0.8	14
53	Decomposition vs. escape of topological defects in a nematic liquid crystal. Soft Matter, 2017, 13, 8442-8450.	1.2	14
54	Magnetic fieldâ€mediated alignment of a nematic liquid crystal at a polymer surface exposed to ultraviolet light. Applied Physics Letters, 1996, 68, 2201-2203.	1.5	13

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55	Molecular character of sharkskin phenomenon in metallocene linear low density polyethylenes. Macromolecular Chemistry and Physics, 1998, 199, 2113-2118.	1.1	13
56	Optical retardation of rub-induced scratches in a polyimide-treated substrate. Applied Physics Letters, 1998, 72, 1917-1919.	1.5	12
57	Bend-Induced Melting of the Smectic-APhase: Analogy to a Type-I Superconductor. Physical Review Letters, 2006, 97, 167802.	2.9	11
58	Nanoscale alignment and optical nanoimaging of a birefringent liquid. Nanotechnology, 2008, 19, 325709.	1.3	11
59	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.	2.9	10
60	FrÃ©edericksz transition in an anticlinic liquid crystal. Physical Review E, 2000, 62, 8152-8158.	0.8	10
61	Patterning-induced surface chirality and modulation of director twist in a nematic cell. Physical Review E, 2009, 80, 060701.	0.8	9
62	Deforming static fluid interfaces with magnetic fields: application to the Rayleighâ€“Taylor instability. Experiments in Fluids, 2011, 51, 1073-1083.	1.1	9
63	Electric field-induced crossover from 3D to 2D topological defects in a nematic liquid crystal: experimental verification. Soft Matter, 2020, 16, 642-650.	1.2	9
64	Splay elasticity in an oligomeric liquid crystal. Liquid Crystals, 1990, 8, 437-443.	0.9	8
65	Observation of a Nematic Phase in an Aqueous Suspension of Phospholipid Tubules. Molecular Crystals and Liquid Crystals, 1992, 210, 169-177.	0.3	8
66	Anchoring strength coefficient of a monomer and its dimer at a polymer-coated interface. Liquid Crystals, 1992, 11, 63-71.	0.9	8
67	Naturally occurring reverse tilt domains in a high-pretilt alignment nematic liquid crystal. Physical Review E, 2007, 76, 021702.	0.8	8
68	Chiral oily streaks in a smectic-A liquid crystal. Soft Matter, 2016, 12, 6662-6668.	1.2	8
69	Counterion unbinding in a micellar liquid crystal in the presence of an alcohol. Journal of Chemical Physics, 1988, 89, 5033-5037.	1.2	7
70	Ferrofluidâ€enhanced orientation of large anisometric colloids. Applied Physics Letters, 1990, 56, 590-592.	1.5	7
71	Nematic-isotropic pretransitional behaviour in dimers with odd and even spacer lengths. Liquid Crystals, 1991, 9, 831-838.	0.9	7
72	Magnetic levitation of liquid crystals. Liquid Crystals, 1997, 23, 547-550.	0.9	7

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73	Highly anisotropic elasticity of a dendrimeric liquid crystal. European Physical Journal B, 1998, 5, 251-255.	0.6	7
74	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.	0.8	7
75	Nanostructured Surfaces: Scientific and Optical Device Applications. Molecular Crystals and Liquid Crystals, 2004, 412, 117-134.	0.4	7
76	Surface-induced weak orientational order and role of isotropic-nematic interface fluctuations in the appearance of an induced nematic film. European Physical Journal E, 2012, 35, 87.	0.7	7
77	Persistence of Smectic-A Oily Streaks into the Nematic Phase by UV Irradiation of Reactive Mesogens. Crystals, 2017, 7, 358.	1.0	7
78	Observations of a streak texture in the hybrid-aligned smectic-C phase. Soft Matter, 2018, 14, 460-469.	1.2	7
79	Atomic force microscopy characterization and liquid crystal aligning effect of polymerizable diacetylene Langmuir Blodgett films. Liquid Crystals, 1995, 19, 489-496.	0.9	6
80	Nematic topological defects positionally controlled by geometry and external fields. Beilstein Journal of Nanotechnology, 2018, 9, 109-118.	1.5	6
81	Interface coupling and growth rate measurements in multilayer Rayleigh-Taylor instabilities. Physical Review Fluids, 2017, 2, .	1.0	6
82	Nematic twist cell: Strong chirality induced at the surfaces. Applied Physics Letters, 2013, 102, .	1.5	5
83	Chiral periodic mesoporous organosilica in a smectic-Aliquid crystal: source of the electrooptic response. Liquid Crystals, 2016, 43, 497-504.	0.9	5
84	Mechanically generated surface chirality: Control of chiral strength. Applied Physics Letters, 2010, 97, 121905.	1.5	4
85	Spatially controllable surface chirality at the nanoscale. Europhysics Letters, 2011, 96, 26001.	0.7	4
86	Co-revolving topological defects in a nematic liquid crystal. Soft Matter, 2021, 17, 9616-9623.	1.2	4
87	Manipulation of mechanically nanopatterned line defect assemblies in plane-parallel nematic liquid crystals. Liquid Crystals Reviews, 2022, 10, 98-122.	1.1	4
88	Chirality, surface anchoring, and the cholesteric-smectic A phase transition. Liquid Crystals, 1995, 18, 251-256.	0.9	3
89	Direct visualization and measurement of the extrapolation length on cooling toward the nematicâ€“smectic-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>A</mml:mi></mml:math>phase transition temperature. Physical Review E, 2010, 81, 051708.	0.8	3
90	Surface topography and rotational symmetry breaking. Physical Review E, 2012, 86, 011711.	0.8	3

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91	Chiral Polymeric Nanocapsules and Their Use for Conformational Deracemization of Liquid Crystals. Journal of Physical Chemistry C, 2018, 122, 17936-17941.	1.5	3
92	Spontaneous Anchoring-Mediated Topography of an Orientable Fluid. Physical Review Letters, 2021, 126, 057803.	2.9	3
93	Electric field-induced acoustic-optic mode coupling in an anticlinic liquid crystal. Physical Review E, 2000, 62, R5911-R5914.	0.8	2
94	Velocity of an electric-field-induced synclinic solitary wave invading the anticlinic liquid crystal phase. Physical Review E, 2001, 63, 062703.	0.8	2
95	Optical Imaging of Liquid Crystals at the Nanoscale. ChemPhysChem, 2014, 15, 1261-1269.	1.0	2
96	Multiple Twisted Chiral Nematic Structures in Cylindrical Confinement. Crystals, 2020, 10, 576.	1.0	2
97	Nematic molecular core flexibility and chiral induction. Physical Review E, 2013, 88, 042501.	0.8	1
98	Liquid crystal quenched orientational disorder at an AFM-scribed alignment surface. Soft Matter, 2015, 11, 2220-2227.	1.2	1
99	Electroclinic effect in a chiral paranematic liquid-crystal layer above the bulk nematic-to-isotropic transition temperature. Physical Review E, 2016, 93, 022701.	0.8	1
100	Chiral organosilica particles and their use as inducers of conformational deracemization of liquid crystal phases. Chemical Physics Letters, 2018, 696, 112-118.	1.2	1
101	Solitary Waves in an Antiferroelectric Liquid Crystal. Molecular Crystals and Liquid Crystals, 1996, 288, 73-82.	0.3	0
102	The Appearance of Ferrielectric Phases in Confined Liquid Crystal Studied by Photon Correlation Spectroscopy. Molecular Crystals and Liquid Crystals, 1999, 328, 93-100.	0.3	0
103	Chiral-Induced Polarization at a Tilted Nematicâ€"Substrate Interface. Ferroelectrics, 2004, 311, 33-39.	0.3	0
104	52.4L: Late News Paper: Continuous Control of Spatiallyâ€Homogeneous Nematic Pretilt Angle Using Mixtures of Two Polyimide Alignment Materials. Digest of Technical Papers SID International Symposium, 2009, 40, 787-789.	0.1	0
105	Creating non-planar static interfaces with magnetic fields. , 2010, , .		0
106	Annihilation of Highly-Charged Topological Defects. Crystals, 2020, 10, 673.	1.0	0
107	Early Career Stars of the Decade. Crystals, 2021, 11, 52.	1.0	0
108	Football: Yuri's indelible impression on my six-year-old son. Journal of Molecular Liquids, 2021, 340, 107813.	2.3	0

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109	Conference report on the 2nd international online conference on crystals 10 â€“ 20 november 2020. Liquid Crystals Today, 2020, 29, 84-84.	2.3	0