# Charles Rosenblatt

## List of Publications by Citations



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|---|---|---|---|
| 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 | Freely Suspended Ferroelectric Liquid-Crystal Films: Absolute Measurements of Polarization, Elastic Constants, and Viscosities. *Physical Review Letters*, **1979**, 42, 1220-1223 | 7.4 | 148 |
| 105 | Temperature dependence of the anchoring strength coefficient at a nematic liquid crystal-wall interface. *Journal De Physique*, **1984**, 45, 1087-1091 | | 98 |
| 104 | Large, continuously controllable nematic pretilt from vertical orientation. *Applied Physics Letters*, **2001**, 79, 2543-2545 | 3.4 | 59 |
| 103 | Ultrahigh-resolution liquid crystal display with gray scale. *Applied Physics Letters*, **2000**, 76, 1240-1242 | 3.4 | 48 |
| 102 | Creating arbitrary arrays of two-dimensional topological defects. *Physical Review E*, **2014**, 90, 052501 | 2.4 | 47 |
| 101 | Linear electroclinic effect in a chiral nematic liquid crystal. *Physical Review Letters*, **1989**, 62, 796-799 | 7.4 | 42 |
| 100 | Behaviour of the anchoring strength coefficient near a structural transition at a nematic substrate interface. *Liquid Crystals*, **1990**, 7, 353-360 | 2.3 | 41 |
| 99 | Liquid-Crystal Fréedericksz Transition and Surface-Induced Smectic Ordering. *Physical Review Letters*, **1984**, 53, 791-794 | 7.4 | 39 |
| 98 | 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 |
| 97 | Carbon nanotube-induced chirality in an achiral liquid crystal. *Applied Physics Letters*, **2010**, 97, 121908 | 3.4 | 37 |
| 96 | Nematic electroclinic effect. *Physical Review A*, **1990**, 41, 1997-2004 | 2.6 | 37 |
| 95 | Carbon nanotube-induced macroscopic helical twist in an achiral nematic liquid crystal. *Journal of Applied Physics*, **2011**, 109, 083518 | 2.5 | 35 |
| 94 | Possible structures for the lamellar isotropic (Lam-I) and lamellar nematic (Lam-N) liquid crystalline phases. *Liquid Crystals*, **2005**, 32, 55-61 | 2.3 | 35 |
| 93 | Polarization-induced renormalization of the B1 elastic modulus in a ferroelectric liquid crystal. *Physical Review Letters*, **1992**, 68, 3575-3578 | 7.4 | 33 |
| 92 | Gold nanoparticle self-assembly moderated by a cholesteric liquid crystal. *Soft Matter*, **2013**, 9, 9366 | 3.6 | 32 |
| 91 | Dendrimeric Liquid Crystals: Isotropic–Nematic Pretransitional Behavior. *Macromolecules*, **1996**, 29, 7813-7819 | 5.5 | 32 |
| 90 | Mechanically generated surface chirality at the nanoscale. *Physical Review Letters*, **2010**, 104, 257801 | 7.4 | 31 |

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| 89 | Chiral induction in thioester and oxoester liquid crystals by dispersed carbon nanotubes. *Liquid Crystals*, **2012**, 39, 199-204 | 2.3 | 30 |
| 88 | Resonance behavior of liquid bridges under axial and lateral oscillating total body forces. *Experiments in Fluids*, **2002**, 33, 503-507 | 2.5 | 30 |
| 87 | Light scattering investigation above the nematic-smectic-A phase transition in binary mixtures of calamitic and bent-core mesogens. *Physical Review E*, **2003**, 68, 031703 | 2.4 | 30 |
| 86 | Full control of nematic pretilt angle using spatially homogeneous mixtures of two polyimide alignment materials. *Journal of Applied Physics*, **2009**, 105, 023508 | 2.5 | 29 |
| 85 | Collapse dynamics of liquid bridges investigated by time-varying magnetic levitation. *Physical Review Letters*, **2000**, 84, 338-41 | 7.4 | 29 |
| 84 | Planar nematic anchoring due to a periodic surface potential. *Journal of Applied Physics*, **2001**, 89, 4747-4751 | 2.5 | 28 |
| 83 | Paramagnetic liquid bridge in a gravity-compensating magnetic field. *Physics of Fluids*, **1998**, 10, 2208-2211 | 4.4 | 28 |
| 82 | Freedericksz transition in an anticlinic liquid crystal. *Physical Review Letters*, **2000**, 84, 4140-3 | 7.4 | 27 |
| 81 | Vanishing Freedericksz transition threshold voltage in a chiral nematic liquid crystal. *Applied Physics Letters*, **1994**, 64, 1741-1743 | 3.4 | 27 |
| 80 | Nematic electroclinic effect in a carbon-nanotube-doped achiral liquid crystal. *Physical Review E*, **2011**, 83, 041707 | 2.4 | 26 |
| 79 | Rayleigh-Taylor instability for immiscible fluids of arbitrary viscosities: a magnetic levitation investigation and theoretical model. *Physical Review Letters*, **2006**, 96, 104501 | 7.4 | 26 |
| 78 | Magnetic-susceptibility measurements below a nearly-second-order nematic-isotropic phase transition in a lyotropic liquid crystal. *Physical Review A*, **1985**, 32, 1115-1121 | 2.6 | 26 |
| 77 | 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 | 2.4 | 24 |
| 76 | Planar degenerate substrate for micro- and nanopatterned nematic liquid-crystal cells. *Journal of Applied Physics*, **2005**, 98, 034303 | 2.5 | 22 |
| 75 | A simple and reliable method for measuring the liquid crystal anchoring strength coefficient. *Liquid Crystals*, **1995**, 19, 427-431 | 2.3 | 22 |
| 74 | Studies of nanocomposites of carbon nanotubes and a negative dielectric anisotropy liquid crystal. *Journal of Chemical Physics*, **2014**, 140, 104908 | 3.9 | 21 |
| 73 | Large polar pretilt for the liquid crystal homologous series alkylcyanobiphenyl. *Applied Physics Letters*, **2005**, 86, 011908 | 3.4 | 21 |
| 72 | Temperature effect on a rubbed polyimide alignment layer. *Journal of Applied Physics*, **2000**, 87, 155-158 | 2.5 | 21 |

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| 71 | Stability of liquid crystalline bridges. *Physics of Fluids*, **1999**, 11, 491-493 | 4.4 | 21 |
| 70 | Comparison of magnetic and electric field induced switching in polymer dispersed liquid crystal films. *Applied Physics Letters*, **1992**, 60, 3132-3134 | 3.4 | 21 |
| 69 | Direct measurement of surface-induced orientational order parameter profile above the nematic-isotropic phase transition temperature. *Physical Review Letters*, **2009**, 102, 167801 | 7.4 | 20 |
| 68 | Macroscopic torsional strain and induced molecular conformational deracemization. *Physical Review Letters*, **2011**, 107, 237804 | 7.4 | 20 |
| 67 | 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 |
| 66 | Appearance of Ferrielectric Phases in a Confined Liquid Crystal Investigated by Photon Correlation Spectroscopy. *Physical Review Letters*, **1998**, 81, 2699-2702 | 7.4 | 20 |
| 65 | History-dependent orientational order of rubbed polyimide for liquid-crystal alignment. *Applied Physics Letters*, **1999**, 75, 3623-3625 | 3.4 | 19 |
| 64 | Optical nanotomography of anisotropic fluids. *Nature Physics*, **2008**, 4, 869-872 | 16.2 | 18 |
| 63 | Homeotropic, rub-free liquid-crystal light shutter. *Applied Physics Letters*, **1994**, 65, 118-120 | 3.4 | 17 |
| 62 | Decomposition of strongly charged topological defects. *Physical Review E*, **2017**, 95, 042702 | 2.4 | 16 |
| 61 | Depression of the nematic-isotropic phase transition temperature at nanopatterned surfaces. *Physical Review E*, **2002**, 66, 041502 | 2.4 | 16 |
| 60 | Dynamics of the nematic-electroclinic effect. *Physical Review A*, **1991**, 43, 7109-7112 | 2.6 | 16 |
| 59 | Probing the pore structure of a chiral periodic mesoporous organosilica using liquid crystals. *Journal of Materials Chemistry*, **2012**, 22, 15255 | | 15 |
| 58 | Transition from escaped to decomposed nematic defects, and vice versa. *Soft Matter*, **2020**, 16, 4814-4822 | 3.6 | 13 |
| 57 | Anomaly in the dynamic behavior of the electroclinic effect below the nematic-smectic-A phase transition. *Physical Review A*, **1991**, 43, 852-857 | 2.6 | 13 |
| 56 | 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 |
| 55 | Electric field-driven reconfigurable multistable topological defect patterns. *Physical Review Research*, **2020**, 2, | 3.9 | 12 |
| 54 | Nanoscale alignment and optical nanoimaging of a birefringent liquid. *Nanotechnology*, **2008**, 19, 325709 | 3.4 | 11 |

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| 53 | Optical retardation of rub-induced scratches in a polyimide-treated substrate. *Applied Physics Letters*, **1998**, 72, 1917-1919 | 3.4 | 11 |
| 52 | Pretransitional behavior above the nematic-isotropic phase transition of an auxetic trimer liquid crystal. *Physical Review E*, **1999**, 60, 4980-2 | 2.4 | 11 |
| 51 | Freedericksz transition in an anticlinic liquid crystal. *Physical Review E*, **2000**, 62, 8152-8 | 2.4 | 10 |
| 50 | 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 |
| 49 | Decomposition vs. escape of topological defects in a nematic liquid crystal. *Soft Matter*, **2017**, 13, 8442-8450 | 3.4 | 9 |
| 48 | Deforming static fluid interfaces with magnetic fields: application to the Rayleigh–Taylor instability. *Experiments in Fluids*, **2011**, 51, 1073-1083 | 2.5 | 9 |
| 47 | Patterning-induced surface chirality and modulation of director twist in a nematic cell. *Physical Review E*, **2009**, 80, 060701 | 2.4 | 9 |
| 46 | Molecular character of sharkskin phenomenon in metallocene linear low density polyethylenes. *Macromolecular Chemistry and Physics*, **1998**, 199, 2113-2118 | 2.6 | 9 |
| 45 | Bend-induced melting of the smectic-A phase: analogy to a type-I superconductor. *Physical Review Letters*, **2006**, 97, 167802 | 7.4 | 9 |
| 44 | Naturally occurring reverse tilt domains in a high-pretilt alignment nematic liquid crystal. *Physical Review E*, **2007**, 76, 021702 | 2.4 | 8 |
| 43 | Observation of a Nematic Phase in an Aqueous Suspension of Phospholipid Tubules. *Molecular Crystals and Liquid Crystals*, **1992**, 210, 169-177 | | 8 |
| 42 | Anchoring strength coefficient of a monomer and its dimer at a polymer-coated interface. *Liquid Crystals*, **1992**, 11, 63-71 | 2.3 | 8 |
| 41 | Chiral oily streaks in a smectic-A liquid crystal. *Soft Matter*, **2016**, 12, 6662-8 | 3.6 | 7 |
| 40 | 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 | 1.5 | 7 |
| 39 | Highly anisotropic elasticity of a dendrimeric liquid crystal. *European Physical Journal B*, **1998**, 5, 251-255 | 1.2 | 7 |
| 38 | 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 |
| 37 | Splay elasticity in an oligomeric liquid crystal. *Liquid Crystals*, **1990**, 8, 437-443 | 2.3 | 7 |
| 36 | Counterion unbinding in a micellar liquid crystal in the presence of an alcohol. *Journal of Chemical Physics*, **1988**, 89, 5033-5037 | 3.9 | 7 |

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| 35 | Electric field-induced crossover from 3D to 2D topological defects in a nematic liquid crystal: experimental verification. *Soft Matter*, **2020**, 16, 642-650 | 3.6 | 7 |
| 34 | Magnetic levitation of liquid crystals. *Liquid Crystals*, **1997**, 23, 547-550 | 2.3 | 6 |
| 33 | Nanostructured Surfaces: Scientific and Optical Device Applications. *Molecular Crystals and Liquid Crystals*, **2004**, 412, 117-134 | 0.5 | 6 |
| 32 | Observations of a streak texture in the hybrid-aligned smectic-C phase. *Soft Matter*, **2018**, 14, 460-469 | 3.6 | 6 |
| 31 | Chiral periodic mesoporous organosilica in a smectic-A liquid crystal: source of the electrooptic response. *Liquid Crystals*, **2016**, 43, 497-504 | 2.3 | 5 |
| 30 | Atomic force microscopy characterization and liquid crystal aligning effect of polymerizable diacetylene Langmuir Blodgett films. *Liquid Crystals*, **1995**, 19, 489-496 | 2.3 | 5 |
| 29 | Nematic-isotropic pretransitional behaviour in dimers with odd and even spacer lengths. *Liquid Crystals*, **1991**, 9, 831-838 | 2.3 | 5 |
| 28 | Ferrofluid-enhanced orientation of large anisometric colloids. *Applied Physics Letters*, **1990**, 56, 590-592 | 3.4 | 5 |
| 27 | Interface coupling and growth rate measurements in multilayer Rayleigh-Taylor instabilities. *Physical Review Fluids*, **2017**, 2, | 2.8 | 5 |
| 26 | Nematic twist cell: Strong chirality induced at the surfaces. *Applied Physics Letters*, **2013**, 102, 134101 | 3.4 | 4 |
| 25 | Mechanically generated surface chirality: Control of chiral strength. *Applied Physics Letters*, **2010**, 97, 121905 | 3.4 | 4 |
| 24 | Nematic topological defects positionally controlled by geometry and external fields. *Beilstein Journal of Nanotechnology*, **2018**, 9, 109-118 | 3 | 3 |
| 23 | Chiral Polymeric Nanocapsules and Their Use for Conformational Deracemization of Liquid Crystals. *Journal of Physical Chemistry C*, **2018**, 122, 17936-17941 | 3.8 | 3 |
| 22 | Persistence of Smectic-A Oily Streaks into the Nematic Phase by UV Irradiation of Reactive Mesogens. *Crystals*, **2017**, 7, 358 | 2.3 | 3 |
| 21 | Spatially controllable surface chirality at the nanoscale. *Europhysics Letters*, **2011**, 96, 26001 | 1.6 | 3 |
| 20 | Direct visualization and measurement of the extrapolation length on cooling toward the nematic-smectic-A phase transition temperature. *Physical Review E*, **2010**, 81, 051708 | 2.4 | 3 |
| 19 | Surface topography and rotational symmetry breaking. *Physical Review E*, **2012**, 86, 011711 | 2.4 | 3 |
| 18 | Multiple Twisted Chiral Nematic Structures in Cylindrical Confinement. *Crystals*, **2020**, 10, 576 | 2.3 | 2 |

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| 17 | Optical imaging of liquid crystals at the nanoscale. *ChemPhysChem*, **2014**, 15, 1261-9 | 3.2 | 2 |
| 16 | Velocity of an electric-field-induced synclinic solitary wave invading the anticlinic liquid crystal phase. *Physical Review E*, **2001**, 63, 062703 | 2.4 | 2 |
| 15 | Spontaneous Anchoring-Mediated Topography of an Orientable Fluid. *Physical Review Letters*, **2021**, 126, 057803 | 7.4 | 2 |
| 14 | Nematic molecular core flexibility and chiral induction. *Physical Review E*, **2013**, 88, 042501 | 2.4 | 1 |
| 13 | Electric field-induced acoustic-optic mode coupling in an anticlinic liquid crystal. *Physical Review E*, **2000**, 62, R5911-4 | 2.4 | 1 |
| 12 | Manipulation of mechanically nanopatterned line defect assemblies in plane-parallel nematic liquid crystals. *Liquid Crystals Reviews*,1-25 | 2.8 | 1 |
| 11 | Co-revolving topological defects in a nematic liquid crystal. *Soft Matter*, **2021**, 17, 9616-9623 | 3.6 | 0 |
| 10 | Chiral organosilica particles and their use as inducers of conformational deracemization of liquid crystal phases. *Chemical Physics Letters*, **2018**, 696, 112-118 | 2.5 | |
| 9 | Electroclinic effect in a chiral paranematic liquid-crystal layer above the bulk nematic-to-isotropic transition temperature. *Physical Review E*, **2016**, 93, 022701 | 2.4 | |
| 8 | Liquid crystal quenched orientational disorder at an AFM-scribed alignment surface. *Soft Matter*, **2015**, 11, 2220-7 | 3.6 | |
| 7 | 52.4L: Late News Paper: Continuous Control of Spatially-Homogeneous Nematic Pretilt Angle Using Mixtures of Two Polyimide Alignment Materials. *Digest of Technical Papers SID International Symposium*, **2009**, 40, 787 | 0.5 | |
| 6 | Chiral-Induced Polarization at a Tilted Nematic Substrate Interface. *Ferroelectrics*, **2004**, 311, 33-39 | 0.6 | |
| 5 | The Appearance of Ferrielectric Phases in Confined Liquid Crystal Studied by Photon Correlation Spectroscopy. *Molecular Crystals and Liquid Crystals*, **1999**, 328, 93-100 | | |
| 4 | Chirality, surface anchoring, and the cholesteric-smectic A phase transition. *Liquid Crystals*, **1995**, 18, 251-256 | 2.3 | |
| 3 | Solitary Waves in an Antiferroelectric Liquid Crystal. *Molecular Crystals and Liquid Crystals*, **1996**, 288, 73-82 | | |
| 2 | Conference report on the 2nd international online conference on crystals 10–20 november 2020. *Liquid Crystals Today*, **2020**, 29, 84-84 | 1.9 | |
| 1 | Annihilation of Highly-Charged Topological Defects. *Crystals*, **2020**, 10, 673 | 2.3 | |