Alejandro D Rey

List of Publications by Year
in descending order

191	3,651	196777	252626
papers	citations	29 h-index	46 g-index

194	194	194	1961
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Liquid crystal models of biological materials and processes. Soft Matter, 2010, 6, 3402.	1.2	193
2	DYNAMICALPHENOMENA INLIQUID-CRYSTALLINEMATERIALS. Annual Review of Fluid Mechanics, 2002, 34, 233-266.	10.8	187
3	Effect of long range order on sheared liquid crystalline materials Part 1: compatibility between tumbling behavior and fixed anchoring. Journal of Non-Newtonian Fluid Mechanics, 1997, 73, 127-152.	1.0	108
4	Polymerization-Induced Phase Separation. 1. Droplet Size Selection Mechanism. Macromolecules, 1996, 29, 8934-8941.	2.2	88
5	Capillary models for liquid crystal fibers, membranes, films, and drops. Soft Matter, 2007, 3, 1349.	1.2	85
6	Polymerization-Induced Phase Separation. 2. Morphological Analysis. Macromolecules, 1997, 30, 2135-2143.	2.2	81
7	Recent advances in theoretical liquid crystal rheology. Macromolecular Theory and Simulations, 1998, 7, 623-639.	0.6	76
8	Shear flows of nematic polymers. I. Orienting modes, bifurcations, and steady state rheological predictions. Journal of Rheology, 1993, 37, 289-314.	1.3	62
9	Computational analysis of spinodal decomposition dynamics in polymer solutions. Macromolecular Theory and Simulations, 1995, 4, 873-899.	0.6	50
10	Liquid crystal models of biological materials and silk spinning. Biopolymers, 2012, 97, 374-396.	1.2	50
11	Viscoelastic theory for nematic interfaces. Physical Review E, 2000, 61, 1540-1549.	0.8	44
12	Flow alignment in the helix uncoiling of sheared cholesteric liquid crystals. Physical Review E, 1996, 53, 4198-4201.	0.8	43
13	Point and ring defects in nematics under capillary confinement. Journal of Chemical Physics, 2007, 127, 104902.	1.2	41
14	Texture formation under phase ordering and phase separation in polymer-liquid crystal mixtures. Journal of Chemical Physics, 2004, 121, 9733-9743.	1.2	40
15	Marangoni flow in liquid crystal interfaces. Journal of Chemical Physics, 1999, 110, 9769-9770.	1.2	39
16	Ideal Strength of Methane Hydrate and Ice I_h from First-Principles. Crystal Growth and Design, 2015, 15, 5301-5309.	1.4	39
17	Chiral front propagation in liquid-crystalline materials: Formation of the planar monodomain twisted plywood architecture of biological fibrous composites. Physical Review E, 2004, 69, 011706.	0.8	38
18	Nanoscale Analysis of Defect Shedding from Liquid Crystal Interfaces. Nano Letters, 2007, 7, 1474-1479.	4.5	37

#	Article	IF	Citations
19	Thermodynamics, Transition Dynamics, and Texturing in Polymer-Dispersed Liquid Crystals with Mesogens Exhibiting a Direct Isotropic/Smectic-A Transition. Macromolecules, 2009, 42, 9486-9497.	2.2	35
20	Ab initioDFT study of structural and mechanical properties of methane and carbon dioxide hydrates. Molecular Simulation, 2015, 41, 572-579.	0.9	35
21	Theory of linear viscoelasticity of cholesteric liquid crystals. Journal of Rheology, 2000, 44, 855-869.	1.3	34
22	Defect controlled dynamics of nematic liquids. Liquid Crystals, 1990, 7, 315-334.	0.9	33
23	Phase equilibrium and structure formation in gold nanoparticlesâ€"nematic liquid crystal composites: experiments and theory. Soft Matter, 2012, 8, 2860.	1.2	33
24	Effect of Guest Size on the Mechanical Properties and Molecular Structure of Gas Hydrates from First-Principles. Crystal Growth and Design, 2017, 17, 6407-6416.	1.4	33
25	Cahnâ€"Hoffman capillarity vector thermodynamics for curved liquid crystal interfaces with applications to fiber instabilities. Journal of Chemical Physics, 2002, 117, 5062-5071.	1.2	32
26	Relaxation dynamics in bio-colloidal cholesteric liquid crystals confined to cylindrical geometry. Nature Communications, 2020, 11, 4616.	5.8	32
27	Analysis of transient periodic textures in nematic polymers. Liquid Crystals, 1989, 4, 409-422.	0.9	31
28	Simple shear and small amplitude oscillatory rectilinear shear permeation flows of cholesteric liquid crystals. Journal of Rheology, 2002, 46, 225-240.	1.3	31
29	Mechanical Model for Anisotropic Curved Interfaces with Applications to Surfactant-Laden Liquidâ˜Liquid Crystal Interfaces. Langmuir, 2006, 22, 219-228.	1.6	31
30	Structure and dynamics of biological liquid crystals. Liquid Crystals, 2014, 41, 430-451.	0.9	31
31	Atomistic modeling of structure II gas hydrate mechanics: Compressibility and equations of state. AIP Advances, 2016, 6, .	0.6	31
32	Texture Rules for Concentrated Filled Nematics. Physical Review Letters, 2005, 95, 127802.	2.9	30
33	Interfacial nematodynamics of heterogeneous curved isotropic-nematic moving fronts. Journal of Chemical Physics, 2006, 124, 244902.	1.2	30
34	Thermodynamics of soft anisotropic interfaces. Journal of Chemical Physics, 2004, 120, 2010-2019.	1.2	29
35	Shear-induced textural transitions in flow-aligning liquid crystal polymers. Physical Review E, 2003, 68, 061704.	0.8	28
36	Theoretical and Computational Rheology for Discotic Nematic Liquid Crystals. Molecular Crystals and Liquid Crystals, 2003, 391, 57-94.	0.4	28

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37	Ringlike cores of cylindrically confined nematic point defects. Journal of Chemical Physics, 2007, 126, 094907.	1.2	28
38	Bifurcational analysis of the isotropic-nematic phase transition of rigid rod polymers subjected to biaxial stretching flow. Macromolecular Theory and Simulations, 1995, 4, 857-872.	0.6	27
39	Cahn-Hoffman capillarity vector thermodynamics for liquid crystal interfaces. Physical Review E, 2002, 66, 021704.	0.8	27
40	Liquid crystal model of membrane flexoelectricity. Physical Review E, 2006, 74, 011710.	0.8	27
41	Growth and structure of nematic spherulites under shallow thermal quenches. Continuum Mechanics and Thermodynamics, 2007, 19, 37-58.	1.4	26
42	Modeling Textural Processes during Self-Assembly of Plant-Based Chiral-Nematic Liquid Crystals. Polymers, 2010, 2, 766-785.	2.0	26
43	Modelling complex liquid crystal mixtures: from polymer dispersed mesophase to nematic nanocolloids. Molecular Simulation, 2012, 38, 735-750.	0.9	26
44	Youngâ€“Laplace equation for liquid crystal interfaces. Journal of Chemical Physics, 2000, 113, 10820-10822.	1.2	25
45	Converging flow of tumbling nematic liquid crystals. Liquid Crystals, 1989, 4, 253-272.	0.9	24
46	Structural transformations and viscoelastic response of sheared fingerprint cholesteric textures. Journal of Non-Newtonian Fluid Mechanics, 1996, 64, 207-227.	1.0	24
47	Transient rheology of discotic mesophases. Rheologica Acta, 2003, 42, 590-604.	1.1	24
48	Molecular Dynamics Characterization of Temperature and Pressure Effects on the Water-Methane Interface. Colloids and Interface Science Communications, 2018, 24, 75-81.	2.0	24
49	Mechanics of soft-solidâ€“liquid-crystal interfaces. Physical Review E, 2005, 72, 011706.	0.8	23
50	Linear oscillatory dynamics of flexoelectric membranes embedded in viscoelastic media with applications to outer hair cells. Journal of Non-Newtonian Fluid Mechanics, 2012, 185-186, 1-17.	1.0	22
51	Jeffrey-Hamel flow of Leslie-Ericksen nematic liquids. Journal of Non-Newtonian Fluid Mechanics, 1988, 27, 375-401.	1.0	21
52	Nemato-capillarity theory and the orientation-induced Marangoni flow. Liquid Crystals, 1999, 26, 913-917.	0.9	21
53	Thermodynamic Model of Surfactant Adsorption on Soft Liquid Crystal Interfaces. Langmuir, 2004, 20, 11473-11479.	1.6	21
54	Polar fluid model of viscoelastic membranes and interfaces. Journal of Colloid and Interface Science, 2006, 304, 226-238.	5.0	21

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55	Characterization of nucleation of methane hydrate crystals: Interfacial theory and molecular simulation. Journal of Colloid and Interface Science, 2019, 557, 556-567.	5.0	21
56	Nucleation and growth of cholesteric collagen tactoids: A time-series statistical analysis based on integration of direct numerical simulation (DNS) and long short-term memory recurrent neural network (LSTM-RNN). Journal of Colloid and Interface Science, 2021, 582, 859-873.	5.0	21
57	Bifurcations and traveling waves in a delayed partial differential equation. Chaos, 1992, 2, 231-244.	1.0	20
58	Generalized cholesteric permeation flows. Physical Review E, 2002, 65, 022701.	0.8	20
59	Biological plywood film formation from para-nematic liquid crystalline organization. Soft Matter, 2017, 13, 8076-8088.	1.2	20
60	THF Hydrates as Model Systems for Natural Gas Hydrates: Comparing Their Mechanical and Vibrational Properties. Industrial & Engineering Chemistry Research, 2019, 58, 16588-16596.	1.8	20
61	Molecular dynamics characterization of the water-methane, ethane, and propane gas mixture interfaces. Chemical Engineering Science, 2019, 208, 114769.	1.9	20
62	Computer simulation of dynamics and morphology of discotic mesophases in extensional flows. Liquid Crystals, 1995, 18, 219-230.	0.9	19
63	Linear viscoelastic model for bending and torsional modes in fluid membranes. Rheologica Acta, 2008, 47, 861-871.	1.1	19
64	Bioinspired model of mechanical energy harvesting based on flexoelectric membranes. Physical Review E, 2013, 87, 022505.	0.8	19
65	Actuation of flexoelectric membranes in viscoelastic fluids with applications to outer hair cells. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20130369.	1.6	19
66	Theory and Simulation of Cholesteric Film Formation Flows of Dilute Collagen Solutions. Langmuir, 2016, 32, 11799-11812.	1.6	19
67	Infrared Spectra of Gas Hydrates from First-Principles. Journal of Physical Chemistry B, 2019, 123, 936-947.	1.2	19
68	Nematostatics of triple lines. Physical Review E, 2003, 67, 011706.	0.8	18
69	Nanostructured free surfaces in plant-based plywoods driven by chiral capillarity. Colloids and Interface Science Communications, 2014, 1, 23-26.	2.0	18
70	Nano-scale surface wrinkling in chiral liquid crystals and plant-based plywoods. Soft Matter, 2015, 11, 1127-1139.	1.2	18
71	Multiscale Modeling and Simulation of Water and Methane Hydrate Crystal Interface. Crystal Growth and Design, 2019, 19, 5142-5151.	1.4	18
72	Thermodynamic modelling of acidic collagenous solutions: from free energy contributions to phase diagrams. Soft Matter, 2019, 15, 1833-1846.	1.2	18

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73	Elastic properties and anisotropic behavior of structure-H (sH) gas hydrate from first principles. Chemical Engineering Science, 2020, 227, 115948.	1.9	18
74	A Multiscale Mechanical Model for Plant Tissue Stiffness. Polymers, 2013, 5, 730-750.	2.0	17
75	Computational study of the elastic properties of Rheum rhabarbarum tissues via surrogate models of tissue geometry. Journal of Structural Biology, 2014, 185, 285-294.	1.3	17
76	Radial creeping flow of rodâ€like nematic liquid crystals. Journal of Rheology, 1990, 34, 425-467.	1.3	16
77	Computational modelling of nematic phase ordering by film and droplet growth over heterogeneous substrates. Liquid Crystals, 2007, 34, 1397-1413.	0.9	16
78	Structure and rheology of fiber-laden membranes via integration of nematodynamics and membranodynamics. Journal of Non-Newtonian Fluid Mechanics, 2010, 165, 32-44.	1.0	16
79	Morphology of elastic nematic liquid crystal membranes. Soft Matter, 2017, 13, 5366-5380.	1.2	16
80	Two negative minima of the first normal stress difference in a celluloseâ€based cholesteric liquid crystal: Helix uncoiling. Journal of Polymer Science, Part B: Polymer Physics, 2017, 55, 821-830.	2.4	16
81	Texture dependence of capillary instabilities in nematic liquid crystalline fibres. Liquid Crystals, 2004, 31, 1271-1284.	0.9	15
82	Energetics and dynamics of hydrogen adsorption, desorption and migration on a carbon-supported palladium cluster. Journal of Materials Chemistry, 2010, 20, 10503.	6.7	15
83	Structural properties of sH hydrate: a DFT study of anisotropy and equation of state. Molecular Simulation, 2019, 45, 1524-1537.	0.9	15
84	Theoretical Platform for Liquid-Crystalline Self-Assembly of Collagen-Based Biomaterials. Frontiers in Physics, 2019, 7, .	1.0	15
85	Theory of linear viscoelasticity of chiral liquid crystals. Rheologica Acta, 1996, 35, 400-409.	1.1	14
86	Theory and Simulation of Gas Diffusion in Cholesteric Liquid Crystal Films. Molecular Crystals and Liquid Crystals, 1997, 293, 87-109.	0.3	14
87	Thermodynamic Modelling of Phase Equilibrium in Nanoparticles â€“ Nematic Liquid Crystals Composites. Molecular Crystals and Liquid Crystals, 2012, 553, 118-126.	0.4	14
88	Defect textures in polygonal arrangements of cylindrical inclusions in cholesteric liquid crystal matrices. Soft Matter, 2013, 9, 1054-1065.	1.2	14
89	Structure characterisation method for ideal and non-ideal twisted plywoods. Soft Matter, 2014, 10, 9446-9453.	1.2	14
90	Stressâ€Sensor Device Based on Flexoelectric Liquid Crystalline Membranes. ChemPhysChem, 2014, 15, 1405-1412.	1.0	14

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91	Hydrogen-Bonded Liquid Crystal Nanocomposites. Langmuir, 2016, 32, 8442-8450.	1.6	14
92	Heat Capacity, Thermal Expansion Coefficient, and GrÃ¼neisen Parameter of CH₄, CO₂, and C₂H₆ Hydrates and Ice I_h via Density Functional Theory and Phonon Calculations. Crystal Growth and Design, 2020, 20, 5947-5955.	1.4	14
93	Nematic contact lines and the Neumann and Young equations for liquid crystals. Journal of Chemical Physics, 1999, 111, 7675-7684.	1.2	13
94	Computational modelling of multi-phase equilibria of mesogenic mixtures. Computational Materials Science, 2004, 29, 152-164.	1.4	13
95	Steady state and transient rheological behavior of mesophase pitch, Part II: Theory. Journal of Rheology, 2005, 49, 175-195.	1.3	13
96	Anisotropic Fluctuation Model for Surfactant-Laden Liquidâ^'Liquid Crystal Interfaces. Langmuir, 2006, 22, 3491-3493.	1.6	13
97	Thermodynamic Modeling of Polymer Solution Interface. Macromolecular Theory and Simulations, 2009, 18, 127-137.	0.6	13
98	A model for mesophase wetting thresholds of sheets, fibers and fiber bundles. Soft Matter, 2011, 7, 5002.	1.2	13
99	Helix uncoiling modes of sheared cholesteric liquid crystals. Journal of Chemical Physics, 1996, 104, 4343-4346.	1.2	12
100	A Model of Capillary Rise of Nematic Liquid Crystals. Langmuir, 2003, 19, 3677-3685.	1.6	12
101	Simulation of texture formation processes in carbonaceous mesophase fibres. Liquid Crystals, 2003, 30, 377-389.	0.9	12
102	Optical and structural modeling of disclination lattices in carbonaceous mesophases. Journal of Chemical Physics, 2005, 122, 034902.	1.2	12
103	Theory and modeling of nematic disclination branching under capillary confinement. Soft Matter, 2012, 8, 11135.	1.2	12
104	From Infrared Spectra to Macroscopic Mechanical Properties of sH Gas Hydrates through Atomistic Calculations. Molecules, 2020, 25, 5568.	1.7	12
105	Computational thermodynamics of multiphase polymerâ€“liquid crystal materials. Computational Materials Science, 2006, 38, 325-339.	1.4	11
106	Magnetic Field-Induced Shape Transitions in Multiphase Polymer-Liquid Crystal Blends. Macromolecular Theory and Simulations, 2006, 15, 469-486.	0.6	11
107	Dynamic interactions between nematic point defects in the spinning extrusion duct of spiders. Journal of Chemical Physics, 2006, 124, 144904.	1.2	11
108	Thermodynamic modelling of carbonaceous mesophase mixtures. Liquid Crystals, 2009, 36, 75-92.	0.9	11

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109	Metastable Nematic Preordering in Smectic Liquid Crystalline Phase Transitions. Macromolecules, 2009, 42, 3841-3844.	2.2	11
110	A good and computationally efficient polynomial approximation to the Maierâ€“Saupe nematic free energy. Liquid Crystals, 2011, 38, 201-205.	0.9	11
111	Faceted particles embedded in a nematic liquid crystal matrix: Textures, stability and filament formation. Soft Matter, 2011, 7, 8592.	1.2	11
112	Hedgehog defects in mixtures of a nematic liquid crystal and a non-nematogenic component. Soft Matter, 2012, 8, 1395-1403.	1.2	11
113	Self-assembly via branching morphologies in nematic liquid-crystal nanocomposites. Physical Review E, 2014, 90, 020501.	0.8	11
114	Chiral graded structures in biological plywoods and in the beetle cuticle. Colloids and Interface Science Communications, 2014, 3, 18-22.	2.0	11
115	Generalized Boussinesq-Scriven surface fluid model with curvature dissipation for liquid surfaces and membranes. Journal of Colloid and Interface Science, 2017, 503, 103-114.	5.0	11
116	Molecular dynamics of dilute binary chromonic liquid crystal mixtures. Molecular Systems Design and Engineering, 2017, 2, 223-234.	1.7	11
117	Thermodynamic Stability Analysis of Liquid-Crystalline Polymer Fibers. Industrial & Engineering Chemistry Research, 1997, 36, 1114-1121.	1.8	10
118	Generalized Young-Laplace Equation for Nematic Liquid Crystal Interfaces and its Application to Free-Surface Defects. Molecular Crystals and Liquid Crystals, 2001, 369, 63-74.	0.3	10
119	Entropic Behavior of Binary Carbonaceous Mesophases. Entropy, 2008, 10, 183-199.	1.1	10
120	Edge dislocation core structure in lamellar smectic-A liquid crystals. Soft Matter, 2010, 6, 1117.	1.2	10
121	Microfibril organization modes in plant cell walls of variable curvature: a model system for two dimensional anisotropic soft matter. Soft Matter, 2011, 7, 7078.	1.2	10
122	Theoretical predictions of disclination loop growth for nematic liquid crystals under capillary confinement. Physical Review E, 2014, 90, 042501.	0.8	10
123	Multiscale Piezoelasticity of Methane Gas Hydrates: From Bonds to Cages to Lattices. Energy & Fuels, 2022, 36, 10591-10600.	2.5	10
124	Tension gradients and Marangoni flows in nematic interfaces. Physical Review E, 1999, 60, 1077-1080.	0.8	9
125	Line tension vector thermodynamics of anisotropic contact lines. Physical Review E, 2004, 69, 041707.	0.8	9
126	Impact of texture on stress growth in thermotropic liquid crystalline polymers subjected to step-shear. Rheologica Acta, 2004, 44, 135-149.	1.1	9

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127	Interfacial Thermodynamics of Polymeric Mesophases. Macromolecular Theory and Simulations, 2004, 13, 686-696.	0.6	9
128	Micromechanics Model of Liquid Crystal Anisotropic Triple Lines with Applications to Self-Assembly. Langmuir, 2010, 26, 13033-13037.	1.6	9
129	Mechanical model for fiber-laden membranes. Continuum Mechanics and Thermodynamics, 2011, 23, 45-61.	1.4	9
130	Dynamic wetting model for the isotropic-to-nematic transition over a flat substrate. Soft Matter, 2014, 10, 1611.	1.2	9
131	Extracting shape from curvature evolution in moving surfaces. Soft Matter, 2018, 14, 1465-1473.	1.2	9
132	Effects of Sodium and Magnesium Cations on the Aggregation of Chromonic Solutions Using Molecular Dynamics. Journal of Physical Chemistry B, 2019, 123, 1718-1732.	1.2	9
133	First-Principles Elastic and Anisotropic Characteristics of Structure-H Gas Hydrate under Pressure. Crystals, 2021, 11, 477.	1.0	9
134	Defectâ€mediated transition in a nematic flow. Journal of Rheology, 1990, 34, 919-942.	1.3	8
135	Interfacial properties of compressible polymer solutions. Journal of Polymer Science, Part B: Polymer Physics, 2009, 47, 640-654.	2.4	8
136	Shape-dynamic growth, structure, and elasticity of homogeneously oriented spherulites in an isotropic/smectic-A mesophase transition. Liquid Crystals, 2009, 36, 1125-1137.	0.9	8
137	Geometric reconstruction of biological orthogonal plywoods. Soft Matter, 2016, 12, 1184-1191.	1.2	8
138	Electrorheological Model Based on Liquid Crystals Membranes with Applications to Outer Hair Cells. Fluids, 2018, 3, 35.	0.8	8
139	Surface Anchoring Effects on the Formation of Two-Wavelength Surface Patterns in Chiral Liquid Crystals. Crystals, 2019, 9, 190.	1.0	8
140	Rate of Entropy Production in Evolving Interfaces and Membranes under Astigmatic Kinematics: Shape Evolution in Geometric-Dissipation Landscapes. Entropy, 2020, 22, 909.	1.1	8
141	Bifurcational analysis of the isotropic-discotic nematic phase transition in the presence of extensional flow. Liquid Crystals, 1995, 19, 325-331.	0.9	7
142	Fiber stability analysis for in-situ liquid crystalline polymer composites. Polymer Composites, 1997, 18, 687-691.	2.3	7
143	Mechanical Theory for Nematic Thin Films. Langmuir, 2001, 17, 1922-1927.	1.6	7
144	Characterization of Pressure Effects on the Cohesive Properties and Structure of Hexane and Polyethylene Using Molecular Dynamics Simulations. Macromolecular Theory and Simulations, 2012, 21, 535-543.	0.6	7

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145	Ab initioDFT study of 6-mercapto-hexane SAMs: effect of Au surface defects on the monolayer assembly. Molecular Simulation, 2013, 39, 292-298.	0.9	7
146	Molecular mobility in carbon dioxide hydrates. Molecular Systems Design and Engineering, 2017, 2, 500-506.	1.7	7
147	The twist-to-bend compliance of theRheum rhabarbarumpetiole: integrated computations and experiments. Computer Methods in Biomechanics and Biomedical Engineering, 2017, 20, 343-354.	0.9	7
148	Biaxial nanowrinkling in cholesteric surfaces: Egg carton surfaces through chiral anchoring. Colloids and Interface Science Communications, 2021, 41, 100372.	2.0	7
149	Piezoâ€elasticity and stability limits of monocrystal methane gas hydrates: Atomisticâ€continuum characterization. Canadian Journal of Chemical Engineering, 2023, 101, 639-650.	0.9	7
150	Shape and structural relaxation of colloidal tactoids. Nature Communications, 2022, 13, 2778.	5.8	7
151	Dynamic viscosity of methane hydrate systems from non-Einsteinian, plasma-functionalized carbon nanotube nanofluids. Nanoscale, 2022, 14, 10211-10225.	2.8	7
152	Mechanical theory of structural disjoining pressure in liquid crystal films. Physical Review E, 2000, 61, 4632-4635.	0.8	6
153	Capillary instabilities in a thin nematic liquid crystalline fiber embedded in a viscous matrix. Continuum Mechanics and Thermodynamics, 2002, 14, 263-279.	1.4	6
154	Molecular Dynamics Study of the Effect of <scp>l</scp>-Alanine Chiral Dopants on Diluted Chromonic Solutions. Journal of Physical Chemistry B, 2019, 123, 8995-9010.	1.2	6
155	Mechanogeometry of nanowrinkling in cholesteric liquid crystal surfaces. Physical Review E, 2020, 101, 062705.	0.8	6
156	Flow-alignment and viscosity rules for single-phase binary mesomorphic mixtures. Liquid Crystals, 1996, 20, 147-159.	0.9	5
157	DFT Study of Gold Surfacesâ€“Ligand Interactions: Alkanethiols versus Halides. Journal of Physical Chemistry C, 2015, 119, 11909-11913.	1.5	5
158	Hydrogen-bonded LC nanocomposites: characterisation of nanoparticle-LC interactions by solid-state NMR and FTIR spectroscopies. Liquid Crystals, 2019, 46, 1067-1078.	0.9	5
159	Thermodynamics of soft anisotropic contact lines. Journal of Chemical Physics, 2004, 121, 2390-2402.	1.2	4
160	Mechanical Model for Filament Buckling and Growth by Phase Ordering. Langmuir, 2008, 24, 662-665.	1.6	4
161	Non-classical scaling for forced wetting of a nematic fluid on a polymeric fiber. Soft Matter, 2009, 5, 2277.	1.2	4
162	Thermodynamic Model of Structure and Shape in Rigid Polymerâ€Laden Membranes. Macromolecular Theory and Simulations, 2010, 19, 113-126.	0.6	4

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163	Recent advances in theoretical liquid crystal rheology. , 1998, 7, 623.		4
164	Wrinkling pattern formation with periodic nematic orientation: From egg cartons to corrugated surfaces. Physical Review E, 2022, 105, 034702.	0.8	4
165	TinyLev acoustically levitated water: Direct observation of collective, inter-droplet effects through morphological and thermal analysis of multiple droplets. Journal of Colloid and Interface Science, 2022, 619, 84-95.	5.0	4
166	Residual normal force after cessation of squeezing flow of liquid crystalline polymers. Journal of Rheology, 1996, 40, 1233-1237.	1.3	3
167	Phenomenological theory of textured mesophase polymers in weak flows. Macromolecular Theory and Simulations, 1996, 5, 863-876.	0.6	3
168	Analysis of Liquid Crystalline Fiber Coatings. Molecular Crystals and Liquid Crystals, 1999, 333, 15-23.	0.3	3
169	Capillary Thermodynamics of Nematic Polymer Interfaces. Macromolecular Theory and Simulations, 2002, 11, 944-952.	0.6	3
170	Theory and simulation of ovoidal disclination loops in nematic liquid crystals under conical confinement. Liquid Crystals, 2015, 42, 506-519.	0.9	3
171	Nanoscale interfacial defect shedding in a growing nematic droplet. Physical Review E, 2017, 96, 022707.	0.8	3
172	Thermal fluctuation spectrum of flexoelectric viscoelastic semiflexible filaments and polymers: A line liquid crystal model. Canadian Journal of Chemical Engineering, 2022, 100, 3162-3173.	0.9	3
173	Stability Analysis of Catenoidal Shaped Liquid Crystalline Polymer Networks. Macromolecules, 1997, 30, 7582-7587.	2.2	2
174	Towards understanding palladium doping of carbon supports: a first-principles molecular dynamics investigation. Journal of Materials Chemistry, 2010, 20, 6859.	6.7	2
175	Oscillating fronts produced by spinodal decomposition of metastable ordered phases. Soft Matter, 2013, 9, 10335.	1.2	2
176	Structure and Pattern Formation in Biological Liquid Crystals: Insights From Theory and Simulation of Self-Assembly and Self-Organization. , 2022, 2, .		2
177	Recent advances in density functional theory and molecular dynamics simulation of mechanical, interfacial, and thermal properties of natural gas hydrates in Canada. Canadian Journal of Chemical Engineering, 2022, 100, 2557-2571.	0.9	2
178	Defect Dynamics of a Nematic Polymer in a Magnetic Field. Materials Research Society Symposia Proceedings, 1990, 209, 299.	0.1	1
179	Computational Modeling of Multiple Domain Pattern Formation. Materials Research Society Symposia Proceedings, 1998, 538, 197.	0.1	1
180	Theory and Simulation of Texture Transformations in Chiral Systems: Applications to Biological Fibrous Composites. Materials Research Society Symposia Proceedings, 2001, 709, 1.	0.1	1

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181	Defect Nucleation and Annihilation in Sheared Polymeric Liquid Crystals. Materials Research Society Symposia Proceedings, 2002, 734, 441.	0.1	1
182	Hierarchical Microstructure and Elastic Properties of Leaf Petiole Tissue in Philodendron melinonii. Materials Research Society Symposia Proceedings, 2012, 1420, 67.	0.1	1
183	Disclination Shape Analysis for Nematic Liquid Crystals under Micron-range Capillary Confinement. Materials Research Society Symposia Proceedings, 2013, 1526, 1.	0.1	1
184	Multi-step modeling of liquid crystals using ab initio molecular packing and hybrid quantum mechanics/molecular mechanics simulations. Journal of Theoretical and Computational Chemistry, 2017, 16, 1750012.	1.8	1
185	Radial Creeping Flow Between Parallel Disks of Rod-like Nematic Liquid Crystals: Textures and Instabilities. Materials Research Society Symposia Proceedings, 1989, 177, 317.	0.1	0
186	Computational Modelling of Mesophase Pitchesâ€™ Shear Rheology. Materials Research Society Symposia Proceedings, 2001, 709, 1.	0.1	0
187	Capillary Instabilities in a Thin Nematic Liquid Crystalline Fiber Embedded in a Viscous Matrix. Materials Research Society Symposia Proceedings, 2001, 709, 1.	0.1	0
188	Simulation of chiral liquid crystal self-assembly: analogies with the structural formation of biological fibrous composites. Materials Research Society Symposia Proceedings, 2002, 735, 741.	0.1	0
189	Nematic Liquid Crystals under Conical Capillary Confinement: Theoretical Study of Geometry Effects on Disclination Lines. Molecular Crystals and Liquid Crystals, 2015, 612, 56-63.	0.4	0
190	Equation of state modeling and force field-based molecular dynamics simulations of supercritical polyethyleneÂ+ hexaneÂ+ ethylene systems. Journal of Molecular Graphics and Modelling, 2020, 100, 107709.	1.3	0
191	Complex Nanowrinkling in Chiral Liquid Crystal Surfaces: From Shaping Mechanisms to Geometric Statistics. Nanomaterials, 2022, 12, 1555.	1.9	0