Alejandro D Rey

List of Publications by Year
in descending order

191 papers	3,651 citations	159585 30 h-index	223800 46 g-index
194 all docs	194 docs citations	194 times ranked	1742 citing authors

#	Article	IF	Citations
1	Piezoâ€elasticity and stability limits of monocrystal methane gas hydrates: Atomisticâ€continuum characterization. Canadian Journal of Chemical Engineering, 2023, 101, 639-650.	1.7	7
2	Thermal fluctuation spectrum of flexoelectric viscoelastic semiflexible filaments and polymers: A line liquid crystal model. Canadian Journal of Chemical Engineering, 2022, 100, 3162-3173.	1.7	3
3	Wrinkling pattern formation with periodic nematic orientation: From egg cartons to corrugated surfaces. Physical Review E, 2022, 105, 034702.	2.1	4
4	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.	9.4	4
5	Complex Nanowrinkling in Chiral Liquid Crystal Surfaces: From Shaping Mechanisms to Geometric Statistics. Nanomaterials, 2022, 12, 1555.	4.1	0
6	Shape and structural relaxation of colloidal tactoids. Nature Communications, 2022, 13, 2778.	12.8	7
7	Structure and Pattern Formation in Biological Liquid Crystals: Insights From Theory and Simulation of Self-Assembly and Self-Organization. , 2022, 2, .		2
8	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.	1.7	2
9	Dynamic viscosity of methane hydrate systems from non-Einsteinian, plasma-functionalized carbon nanotube nanofluids. Nanoscale, 2022, 14, 10211-10225.	5.6	7
10	Multiscale Piezoelasticity of Methane Gas Hydrates: From Bonds to Cages to Lattices. Energy & Fuels, 2022, 36, 10591-10600.	5.1	10
11	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.	9.4	21
12	Biaxial nanowrinkling in cholesteric surfaces: Egg carton surfaces through chiral anchoring. Colloids and Interface Science Communications, 2021, 41, 100372.	4.1	7
13	First-Principles Elastic and Anisotropic Characteristics of Structure-H Gas Hydrate under Pressure. Crystals, 2021, 11, 477.	2.2	9
14	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.	2.4	0
15	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.	3.0	14
16	Elastic properties and anisotropic behavior of structure-H (sH) gas hydrate from first principles. Chemical Engineering Science, 2020, 227, 115948.	3.8	18
17	Rate of Entropy Production in Evolving Interfaces and Membranes under Astigmatic Kinematics: Shape Evolution in Geometric-Dissipation Landscapes. Entropy, 2020, 22, 909.	2.2	8
18	Relaxation dynamics in bio-colloidal cholesteric liquid crystals confined to cylindrical geometry. Nature Communications, 2020, 11, 4616.	12.8	32

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19	From Infrared Spectra to Macroscopic Mechanical Properties of sH Gas Hydrates through Atomistic Calculations. Molecules, 2020, 25, 5568.	3.8	12
20	Mechanogeometry of nanowrinkling in cholesteric liquid crystal surfaces. Physical Review E, 2020, 101, 062705.	2.1	6
21	THF Hydrates as Model Systems for Natural Gas Hydrates: Comparing Their Mechanical and Vibrational Properties. Industrial & Engineering Chemistry Research, 2019, 58, 16588-16596.	3.7	20
22	Multiscale Modeling and Simulation of Water and Methane Hydrate Crystal Interface. Crystal Growth and Design, 2019, 19, 5142-5151.	3.0	18
23	Structural properties of sH hydrate: a DFT study of anisotropy and equation of state. Molecular Simulation, 2019, 45, 1524-1537.	2.0	15
24	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.	2.6	6
25	Characterization of nucleation of methane hydrate crystals: Interfacial theory and molecular simulation. Journal of Colloid and Interface Science, 2019, 557, 556-567.	9.4	21
26	Thermodynamic modelling of acidic collagenous solutions: from free energy contributions to phase diagrams. Soft Matter, 2019, 15, 1833-1846.	2.7	18
27	Effects of Sodium and Magnesium Cations on the Aggregation of Chromonic Solutions Using Molecular Dynamics. Journal of Physical Chemistry B, 2019, 123, 1718-1732.	2.6	9
28	Theoretical Platform for Liquid-Crystalline Self-Assembly of Collagen-Based Biomaterials. Frontiers in Physics, 2019, 7, .	2.1	15
29	Surface Anchoring Effects on the Formation of Two-Wavelength Surface Patterns in Chiral Liquid Crystals. Crystals, 2019, 9, 190.	2.2	8
30	Molecular dynamics characterization of the water-methane, ethane, and propane gas mixture interfaces. Chemical Engineering Science, 2019, 208, 114769.	3.8	20
31	Hydrogen-bonded LC nanocomposites: characterisation of nanoparticle-LC interactions by solid-state NMR and FTIR spectroscopies. Liquid Crystals, 2019, 46, 1067-1078.	2.2	5
32	Infrared Spectra of Gas Hydrates from First-Principles. Journal of Physical Chemistry B, 2019, 123, 936-947.	2.6	19
33	Extracting shape from curvature evolution in moving surfaces. Soft Matter, 2018, 14, 1465-1473.	2.7	9
34	Molecular Dynamics Characterization of Temperature and Pressure Effects on the Water-Methane Interface. Colloids and Interface Science Communications, 2018, 24, 75-81.	4.1	24
35	Electrorheological Model Based on Liquid Crystals Membranes with Applications to Outer Hair Cells. Fluids, 2018, 3, 35.	1.7	8
36	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

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37	Generalized Boussinesq-Scriven surface fluid model with curvature dissipation for liquid surfaces and membranes. Journal of Colloid and Interface Science, 2017, 503, 103-114.	9.4	11
38	Molecular dynamics of dilute binary chromonic liquid crystal mixtures. Molecular Systems Design and Engineering, 2017, 2, 223-234.	3.4	11
39	Morphology of elastic nematic liquid crystal membranes. Soft Matter, 2017, 13, 5366-5380.	2.7	16
40	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.	2.1	16
41	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.	3.0	33
42	Molecular mobility in carbon dioxide hydrates. Molecular Systems Design and Engineering, 2017, 2, 500-506.	3.4	7
43	Biological plywood film formation from para-nematic liquid crystalline organization. Soft Matter, 2017, 13, 8076-8088.	2.7	20
44	Nanoscale interfacial defect shedding in a growing nematic droplet. Physical Review E, 2017, 96, 022707.	2.1	3
45	The twist-to-bend compliance of theRheum rhabarbarumpetiole: integrated computations and experiments. Computer Methods in Biomechanics and Biomedical Engineering, 2017, 20, 343-354.	1.6	7
46	Atomistic modeling of structure II gas hydrate mechanics: Compressibility and equations of state. AIP Advances, 2016, 6, .	1.3	31
47	Hydrogen-Bonded Liquid Crystal Nanocomposites. Langmuir, 2016, 32, 8442-8450.	3.5	14
48	Theory and Simulation of Cholesteric Film Formation Flows of Dilute Collagen Solutions. Langmuir, 2016, 32, 11799-11812.	3.5	19
49	Geometric reconstruction of biological orthogonal plywoods. Soft Matter, 2016, 12, 1184-1191.	2.7	8
50	Nematic Liquid Crystals under Conical Capillary Confinement: Theoretical Study of Geometry Effects on Disclination Lines. Molecular Crystals and Liquid Crystals, 2015, 612, 56-63.	0.9	0
51	DFT Study of Gold Surfacesâ€"Ligand Interactions: Alkanethiols versus Halides. Journal of Physical Chemistry C, 2015, 119, 11909-11913.	3.1	5
52	Theory and simulation of ovoidal disclination loops in nematic liquid crystals under conical confinement. Liquid Crystals, 2015, 42, 506-519.	2.2	3
53	Ideal Strength of Methane Hydrate and Ice I_h from First-Principles. Crystal Growth and Design, 2015, 15, 5301-5309.	3.0	39
54	Nano-scale surface wrinkling in chiral liquid crystals and plant-based plywoods. Soft Matter, 2015, 11, 1127-1139.	2.7	18

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55	Ab initioDFT study of structural and mechanical properties of methane and carbon dioxide hydrates. Molecular Simulation, 2015, 41, 572-579.	2.0	35
56	Structure characterisation method for ideal and non-ideal twisted plywoods. Soft Matter, 2014, 10, 9446-9453.	2.7	14
57	Computational study of the elastic properties of Rheum rhabarbarum tissues via surrogate models of tissue geometry. Journal of Structural Biology, 2014, 185, 285-294.	2.8	17
58	Structure and dynamics of biological liquid crystals. Liquid Crystals, 2014, 41, 430-451.	2.2	31
59	Stressâ€Sensor Device Based on Flexoelectric Liquid Crystalline Membranes. ChemPhysChem, 2014, 15, 1405-1412.	2.1	14
60	Dynamic wetting model for the isotropic-to-nematic transition over a flat substrate. Soft Matter, 2014, 10, 1611.	2.7	9
61	Theoretical predictions of disclination loop growth for nematic liquid crystals under capillary confinement. Physical Review E, 2014, 90, 042501.	2.1	10
62	Self-assembly via branching morphologies in nematic liquid-crystal nanocomposites. Physical Review E, 2014, 90, 020501.	2.1	11
63	Nanostructured free surfaces in plant-based plywoods driven by chiral capillarity. Colloids and Interface Science Communications, 2014, 1, 23-26.	4.1	18
64	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.	3.4	19
65	Chiral graded structures in biological plywoods and in the beetle cuticle. Colloids and Interface Science Communications, 2014, 3, 18-22.	4.1	11
66	Oscillating fronts produced by spinodal decomposition of metastable ordered phases. Soft Matter, 2013, 9, 10335.	2.7	2
67	Defect textures in polygonal arrangements of cylindrical inclusions in cholesteric liquid crystal matrices. Soft Matter, 2013, 9, 1054-1065.	2.7	14
68	Bioinspired model of mechanical energy harvesting based on flexoelectric membranes. Physical Review E, 2013, 87, 022505.	2.1	19
69	Ab initioDFT study of 6-mercapto-hexane SAMs: effect of Au surface defects on the monolayer assembly. Molecular Simulation, 2013, 39, 292-298.	2.0	7
70	A Multiscale Mechanical Model for Plant Tissue Stiffness. Polymers, 2013, 5, 730-750.	4.5	17
71	Disclination Shape Analysis for Nematic Liquid Crystals under Micron-range Capillary Confinement. Materials Research Society Symposia Proceedings, 2013, 1526, 1.	0.1	1
72	Hierarchical Microstructure and Elastic Properties of Leaf Petiole Tissue in Philodendron melinonii. Materials Research Society Symposia Proceedings, 2012, 1420, 67.	0.1	1

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73	Phase equilibrium and structure formation in gold nanoparticlesâ€"nematic liquid crystal composites: experiments and theory. Soft Matter, 2012, 8, 2860.	2.7	33
74	Thermodynamic Modelling of Phase Equilibrium in Nanoparticles â€" Nematic Liquid Crystals Composites. Molecular Crystals and Liquid Crystals, 2012, 553, 118-126.	0.9	14
75	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.	1.4	7
76	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.	2.4	22
77	Theory and modeling of nematic disclination branching under capillary confinement. Soft Matter, 2012, 8, 11135.	2.7	12
78	Hedgehog defects in mixtures of a nematic liquid crystal and a non-nematogenic component. Soft Matter, 2012, 8, 1395-1403.	2.7	11
79	Modelling complex liquid crystal mixtures: from polymer dispersed mesophase to nematic nanocolloids. Molecular Simulation, 2012, 38, 735-750.	2.0	26
80	Liquid crystal models of biological materials and silk spinning. Biopolymers, 2012, 97, 374-396.	2.4	50
81	A model for mesophase wetting thresholds of sheets, fibers and fiber bundles. Soft Matter, 2011, 7, 5002.	2.7	13
82	Microfibril organization modes in plant cell walls of variable curvature: a model system for two dimensional anisotropic soft matter. Soft Matter, 2011, 7, 7078.	2.7	10
83	A good and computationally efficient polynomial approximation to the Maierâ€"Saupe nematic free energy. Liquid Crystals, 2011, 38, 201-205.	2.2	11
84	Faceted particles embedded in a nematic liquid crystal matrix: Textures, stability and filament formation. Soft Matter, 2011, 7, 8592.	2.7	11
85	Mechanical model for fiber-laden membranes. Continuum Mechanics and Thermodynamics, 2011, 23, 45-61.	2.2	9
86	Thermodynamic Model of Structure and Shape in Rigid Polymerâ€Ładen Membranes. Macromolecular Theory and Simulations, 2010, 19, 113-126.	1.4	4
87	Structure and rheology of fiber-laden membranes via integration of nematodynamics and membranodynamics. Journal of Non-Newtonian Fluid Mechanics, 2010, 165, 32-44.	2.4	16
88	Modeling Textural Processes during Self-Assembly of Plant-Based Chiral-Nematic Liquid Crystals. Polymers, 2010, 2, 766-785.	4.5	26
89	Towards understanding palladium doping of carbon supports: a first-principles molecular dynamics investigation. Journal of Materials Chemistry, 2010, 20, 6859.	6.7	2
90	Liquid crystal models of biological materials and processes. Soft Matter, 2010, 6, 3402.	2.7	193

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91	Micromechanics Model of Liquid Crystal Anisotropic Triple Lines with Applications to Self-Assembly. Langmuir, 2010, 26, 13033-13037.	3.5	9
92	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
93	Edge dislocation core structure in lamellar smectic-A liquid crystals. Soft Matter, 2010, 6, 1117.	2.7	10
94	Thermodynamic Modeling of Polymer Solution Interface. Macromolecular Theory and Simulations, 2009, 18, 127-137.	1.4	13
95	Interfacial properties of compressible polymer solutions. Journal of Polymer Science, Part B: Polymer Physics, 2009, 47, 640-654.	2.1	8
96	Thermodynamics, Transition Dynamics, and Texturing in Polymer-Dispersed Liquid Crystals with Mesogens Exhibiting a Direct Isotropic/Smectic-A Transition. Macromolecules, 2009, 42, 9486-9497.	4.8	35
97	Thermodynamic modelling of carbonaceous mesophase mixtures. Liquid Crystals, 2009, 36, 75-92.	2.2	11
98	Metastable Nematic Preordering in Smectic Liquid Crystalline Phase Transitions. Macromolecules, 2009, 42, 3841-3844.	4.8	11
99	Shape-dynamic growth, structure, and elasticity of homogeneously oriented spherulites in an isotropic/smectic-A mesophase transition. Liquid Crystals, 2009, 36, 1125-1137.	2.2	8
100	Non-classical scaling for forced wetting of a nematic fluid on a polymeric fiber. Soft Matter, 2009, 5, 2277.	2.7	4
101	Linear viscoelastic model for bending and torsional modes in fluid membranes. Rheologica Acta, 2008, 47, 861-871.	2.4	19
102	Mechanical Model for Filament Buckling and Growth by Phase Ordering. Langmuir, 2008, 24, 662-665.	3.5	4
103	Entropic Behavior of Binary Carbonaceous Mesophases. Entropy, 2008, 10, 183-199.	2.2	10
104	Ringlike cores of cylindrically confined nematic point defects. Journal of Chemical Physics, 2007, 126, 094907.	3.0	28
105	Point and ring defects in nematics under capillary confinement. Journal of Chemical Physics, 2007, 127, 104902.	3.0	41
106	Computational modelling of nematic phase ordering by film and droplet growth over heterogeneous substrates. Liquid Crystals, 2007, 34, 1397-1413.	2.2	16
107	Capillary models for liquid crystal fibers, membranes, films, and drops. Soft Matter, 2007, 3, 1349.	2.7	85
108	Nanoscale Analysis of Defect Shedding from Liquid Crystal Interfaces. Nano Letters, 2007, 7, 1474-1479.	9.1	37

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109	Growth and structure of nematic spherulites under shallow thermal quenches. Continuum Mechanics and Thermodynamics, 2007, 19, 37-58.	2.2	26
110	Mechanical Model for Anisotropic Curved Interfaces with Applications to Surfactant-Laden Liquidâ˜'Liquid Crystal Interfaces. Langmuir, 2006, 22, 219-228.	3.5	31
111	Anisotropic Fluctuation Model for Surfactant-Laden Liquidâ˜'Liquid Crystal Interfaces. Langmuir, 2006, 22, 3491-3493.	3.5	13
112	Computational thermodynamics of multiphase polymerâ€"liquid crystal materials. Computational Materials Science, 2006, 38, 325-339.	3.0	11
113	Polar fluid model of viscoelastic membranes and interfaces. Journal of Colloid and Interface Science, 2006, 304, 226-238.	9.4	21
114	Magnetic Field-Induced Shape Transitions in Multiphase Polymer-Liquid Crystal Blends. Macromolecular Theory and Simulations, 2006, 15, 469-486.	1.4	11
115	Liquid crystal model of membrane flexoelectricity. Physical Review E, 2006, 74, 011710.	2.1	27
116	Dynamic interactions between nematic point defects in the spinning extrusion duct of spiders. Journal of Chemical Physics, 2006, 124, 144904.	3.0	11
117	Interfacial nematodynamics of heterogeneous curved isotropic-nematic moving fronts. Journal of Chemical Physics, 2006, 124, 244902.	3.0	30
118	Optical and structural modeling of disclination lattices in carbonaceous mesophases. Journal of Chemical Physics, 2005, 122, 034902.	3.0	12
119	Texture Rules for Concentrated Filled Nematics. Physical Review Letters, 2005, 95, 127802.	7.8	30
120	Mechanics of soft-solidâ€"liquid-crystal interfaces. Physical Review E, 2005, 72, 011706.	2.1	23
121	Steady state and transient rheological behavior of mesophase pitch, Part II: Theory. Journal of Rheology, 2005, 49, 175-195.	2.6	13
122	Thermodynamics of soft anisotropic contact lines. Journal of Chemical Physics, 2004, 121, 2390-2402.	3.0	4
123	Line tension vector thermodynamics of anisotropic contact lines. Physical Review E, 2004, 69, 041707.	2.1	9
124	Thermodynamics of soft anisotropic interfaces. Journal of Chemical Physics, 2004, 120, 2010-2019.	3.0	29
125	Texture formation under phase ordering and phase separation in polymer-liquid crystal mixtures. Journal of Chemical Physics, 2004, 121, 9733-9743.	3.0	40
126	Impact of texture on stress growth in thermotropic liquid crystalline polymers subjected to step-shear. Rheologica Acta, 2004, 44, 135-149.	2.4	9

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127	Interfacial Thermodynamics of Polymeric Mesophases. Macromolecular Theory and Simulations, 2004, 13, 686-696.	1.4	9
128	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.	2.1	38
129	Thermodynamic Model of Surfactant Adsorption on Soft Liquid Crystal Interfaces. Langmuir, 2004, 20, 11473-11479.	3.5	21
130	Texture dependence of capillary instabilities in nematic liquid crystalline fibres. Liquid Crystals, 2004, 31, 1271-1284.	2.2	15
131	Computational modelling of multi-phase equilibria of mesogenic mixtures. Computational Materials Science, 2004, 29, 152-164.	3.0	13
132	Transient rheology of discotic mesophases. Rheologica Acta, 2003, 42, 590-604.	2.4	24
133	A Model of Capillary Rise of Nematic Liquid Crystals. Langmuir, 2003, 19, 3677-3685.	3.5	12
134	Shear-induced textural transitions in flow-aligning liquid crystal polymers. Physical Review E, 2003, 68, 061704.	2.1	28
135	Theoretical and Computational Rheology for Discotic Nematic Liquid Crystals. Molecular Crystals and Liquid Crystals, 2003, 391, 57-94.	0.9	28
136	Nematostatics of triple lines. Physical Review E, 2003, 67, 011706.	2.1	18
137	Simulation of texture formation processes in carbonaceous mesophase fibres. Liquid Crystals, 2003, 30, 377-389.	2.2	12
138	Cahn-Hoffman capillarity vector thermodynamics for liquid crystal interfaces. Physical Review E, 2002, 66, 021704.	2.1	27
139	Generalized cholesteric permeation flows. Physical Review E, 2002, 65, 022701.	2.1	20
140	Cahnâ€"Hoffman capillarity vector thermodynamics for curved liquid crystal interfaces with applications to fiber instabilities. Journal of Chemical Physics, 2002, 117, 5062-5071.	3.0	32
141	Defect Nucleation and Annihilation in Sheared Polymeric Liquid Crystals. Materials Research Society Symposia Proceedings, 2002, 734, 441.	0.1	1
142	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
143	DYNAMICALPHENOMENA INLIQUID-CRYSTALLINEMATERIALS. Annual Review of Fluid Mechanics, 2002, 34, 233-266.	25.0	187
144	Simple shear and small amplitude oscillatory rectilinear shear permeation flows of cholesteric liquid crystals. Journal of Rheology, 2002, 46, 225-240.	2.6	31

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145	Capillary Thermodynamics of Nematic Polymer Interfaces. Macromolecular Theory and Simulations, 2002, 11, 944-952.	1.4	3
146	Capillary instabilities in a thin nematic liquid crystalline fiber embedded in a viscous matrix. Continuum Mechanics and Thermodynamics, 2002, 14, 263-279.	2.2	6
147	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
148	Mechanical Theory for Nematic Thin Films. Langmuir, 2001, 17, 1922-1927.	3.5	7
149	Computational Modelling of Mesophase Pitchesâ€™ Shear Rheology. Materials Research Society Symposia Proceedings, 2001, 709, 1.	0.1	0
150	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
151	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
152	Mechanical theory of structural disjoining pressure in liquid crystal films. Physical Review E, 2000, 61, 4632-4635.	2.1	6
153	Youngâ€"Laplace equation for liquid crystal interfaces. Journal of Chemical Physics, 2000, 113, 10820-10822.	3.0	25
154	Viscoelastic theory for nematic interfaces. Physical Review E, 2000, 61, 1540-1549.	2.1	44
155	Theory of linear viscoelasticity of cholesteric liquid crystals. Journal of Rheology, 2000, 44, 855-869.	2.6	34
156	Nematic contact lines and the Neumann and Young equations for liquid crystals. Journal of Chemical Physics, 1999, 111, 7675-7684.	3.0	13
157	Tension gradients and Marangoni flows in nematic interfaces. Physical Review E, 1999, 60, 1077-1080.	2.1	9
158	Marangoni flow in liquid crystal interfaces. Journal of Chemical Physics, 1999, 110, 9769-9770.	3.0	39
159	Analysis of Liquid Crystalline Fiber Coatings. Molecular Crystals and Liquid Crystals, 1999, 333, 15-23.	0.3	3
160	Nemato-capillarity theory and the orientation-induced Marangoni flow. Liquid Crystals, 1999, 26, 913-917.	2.2	21
161	Recent advances in theoretical liquid crystal rheology. Macromolecular Theory and Simulations, 1998, 7, 623-639.	1.4	76
162	Computational Modeling of Multiple Domain Pattern Formation. Materials Research Society Symposia Proceedings, 1998, 538, 197.	0.1	1

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163	Recent advances in theoretical liquid crystal rheology. Macromolecular Theory and Simulations, 1998, 7, 623-639.	1.4	4
164	Theory and Simulation of Gas Diffusion in Cholesteric Liquid Crystal Films. Molecular Crystals and Liquid Crystals, 1997, 293, 87-109.	0.3	14
165	Stability Analysis of Catenoidal Shaped Liquid Crystalline Polymer Networks. Macromolecules, 1997, 30, 7582-7587.	4.8	2
166	Thermodynamic Stability Analysis of Liquid-Crystalline Polymer Fibers. Industrial & Engineering Chemistry Research, 1997, 36, 1114-1121.	3.7	10
167	Polymerization-Induced Phase Separation. 2. Morphological Analysis. Macromolecules, 1997, 30, 2135-2143.	4.8	81
168	Fiber stability analysis for in-situ liquid crystalline polymer composites. Polymer Composites, 1997, 18, 687-691.	4.6	7
169	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.	2.4	108
170	Polymerization-Induced Phase Separation. 1. Droplet Size Selection Mechanism. Macromolecules, 1996, 29, 8934-8941.	4.8	88
171	Residual normal force after cessation of squeezing flow of liquid crystalline polymers. Journal of Rheology, 1996, 40, 1233-1237.	2.6	3
172	Flow alignment in the helix uncoiling of sheared cholesteric liquid crystals. Physical Review E, 1996, 53, 4198-4201.	2.1	43
173	Structural transformations and viscoelastic response of sheared fingerprint cholesteric textures. Journal of Non-Newtonian Fluid Mechanics, 1996, 64, 207-227.	2.4	24
174	Phenomenological theory of textured mesophase polymers in weak flows. Macromolecular Theory and Simulations, 1996, 5, 863-876.	1.4	3
175	Theory of linear viscoelasticity of chiral liquid crystals. Rheologica Acta, 1996, 35, 400-409.	2.4	14
176	Helix uncoiling modes of sheared cholesteric liquid crystals. Journal of Chemical Physics, 1996, 104, 4343-4346.	3.0	12
177	Flow-alignment and viscosity rules for single-phase binary mesomorphic mixtures. Liquid Crystals, 1996, 20, 147-159.	2.2	5
178	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.	1.4	27
179	Computational analysis of spinodal decomposition dynamics in polymer solutions. Macromolecular Theory and Simulations, 1995, 4, 873-899.	1.4	50
180	Computer simulation of dynamics and morphology of discotic mesophases in extensional flows. Liquid Crystals, 1995, 18, 219-230.	2.2	19

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181	Bifurcational analysis of the isotropic-discotic nematic phase transition in the presence of extensional flow. Liquid Crystals, 1995, 19, 325-331.	2.2	7
182	Shear flows of nematic polymers. I. Orienting modes, bifurcations, and steady state rheological predictions. Journal of Rheology, 1993, 37, 289-314.	2.6	62
183	Bifurcations and traveling waves in a delayed partial differential equation. Chaos, 1992, 2, 231-244.	2.5	20
184	Defect Dynamics of a Nematic Polymer in a Magnetic Field. Materials Research Society Symposia Proceedings, 1990, 209, 299.	0.1	1
185	Defect controlled dynamics of nematic liquids. Liquid Crystals, 1990, 7, 315-334.	2.2	33
186	Defectâ€mediated transition in a nematic flow. Journal of Rheology, 1990, 34, 919-942.	2.6	8
187	Radial creeping flow of rodâ€like nematic liquid crystals. Journal of Rheology, 1990, 34, 425-467.	2.6	16
188	Analysis of transient periodic textures in nematic polymers. Liquid Crystals, 1989, 4, 409-422.	2.2	31
189	Converging flow of tumbling nematic liquid crystals. Liquid Crystals, 1989, 4, 253-272.	2.2	24
190	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
191	Jeffrey-Hamel flow of Leslie-Ericksen nematic liquids. Journal of Non-Newtonian Fluid Mechanics, 1988, 27, 375-401.	2.4	21