

Alejandro D Rey

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.

185 papers	2,862 citations	26 h-index	41 g-index
194 ext. papers	3,307 ext. citations	3.6 avg, IF	5.85 L-index

#	Paper	IF	Citations
185	Wrinkling pattern formation with periodic nematic orientation: From egg cartons to corrugated surfaces.. <i>Physical Review E</i> , 2022 , 105, 034702	2.4	0
184	TinyLev acoustically levitated water: Direct observation of collective, inter-droplet effects through morphological and thermal analysis of multiple droplets.. <i>Journal of Colloid and Interface Science</i> , 2022 , 619, 84-95	9.3	1
183	Shape and structural relaxation of colloidal tactoids.. <i>Nature Communications</i> , 2022 , 13, 2778	17.4	0
182	First-Principles Elastic and Anisotropic Characteristics of Structure-H Gas Hydrate under Pressure. <i>Crystals</i> , 2021 , 11, 477	2.3	2
181	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). <i>Journal of Colloid and Interface Science</i> , 2021 , 582, 859-873	9.3	7
180	Biaxial nanowrinkling in cholesteric surfaces: Egg carton surfaces through chiral anchoring. <i>Colloids and Interface Science Communications</i> , 2021 , 41, 100372	5.4	2
179	Mechanogeometry of nanowrinkling in cholesteric liquid crystal surfaces. <i>Physical Review E</i> , 2020 , 101, 062705	2.4	2
178	Equation of state modeling and force field-based molecular dynamics simulations of supercritical polyethylene-hexane-ethylene systems. <i>Journal of Molecular Graphics and Modelling</i> , 2020 , 100, 107709	2.8	2
177	Heat Capacity, Thermal Expansion Coefficient, and Grüneisen Parameter of CH ₄ , CO ₂ , and C ₂ H ₆ Hydrates and Ice Ih via Density Functional Theory and Phonon Calculations. <i>Crystal Growth and Design</i> , 2020 , 20, 5947-5955	3.5	3
176	Elastic properties and anisotropic behavior of structure-H (sH) gas hydrate from first principles. <i>Chemical Engineering Science</i> , 2020 , 227, 115948	4.4	12
175	Rate of Entropy Production in Evolving Interfaces and Membranes under Astigmatic Kinematics: Shape Evolution in Geometric-Dissipation Landscapes. <i>Entropy</i> , 2020 , 22,	2.8	3
174	Relaxation dynamics in bio-colloidal cholesteric liquid crystals confined to cylindrical geometry. <i>Nature Communications</i> , 2020 , 11, 4616	17.4	14
173	From Infrared Spectra to Macroscopic Mechanical Properties of sH Gas Hydrates through Atomistic Calculations. <i>Molecules</i> , 2020 , 25,	4.8	2
172	Structural properties of sH hydrate: a DFT study of anisotropy and equation of state. <i>Molecular Simulation</i> , 2019 , 45, 1524-1537	2	4
171	Molecular Dynamics Study of the Effect of l-Alanine Chiral Dopants on Diluted Chromonic Solutions. <i>Journal of Physical Chemistry B</i> , 2019 , 123, 8995-9010	3.4	6
170	Characterization of nucleation of methane hydrate crystals: Interfacial theory and molecular simulation. <i>Journal of Colloid and Interface Science</i> , 2019 , 557, 556-567	9.3	7
169	Thermodynamic modelling of acidic collagenous solutions: from free energy contributions to phase diagrams. <i>Soft Matter</i> , 2019 , 15, 1833-1846	3.6	12

168	Effects of Sodium and Magnesium Cations on the Aggregation of Chromonic Solutions Using Molecular Dynamics. <i>Journal of Physical Chemistry B</i> , 2019 , 123, 1718-1732	3.4	7
167	Theoretical Platform for Liquid-Crystalline Self-Assembly of Collagen-Based Biomaterials. <i>Frontiers in Physics</i> , 2019 , 7,	3.9	9
166	Surface Anchoring Effects on the Formation of Two-Wavelength Surface Patterns in Chiral Liquid Crystals. <i>Crystals</i> , 2019 , 9, 190	2.3	4
165	Molecular dynamics characterization of the water-methane, ethane, and propane gas mixture interfaces. <i>Chemical Engineering Science</i> , 2019 , 208, 114769	4.4	10
164	THF Hydrates as Model Systems for Natural Gas Hydrates: Comparing Their Mechanical and Vibrational Properties. <i>Industrial & Engineering Chemistry Research</i> , 2019 , 58, 16588-16596	3.9	11
163	Multiscale Modeling and Simulation of Water and Methane Hydrate Crystal Interface. <i>Crystal Growth and Design</i> , 2019 , 19, 5142-5151	3.5	9
162	Hydrogen-bonded LC nanocomposites: characterisation of nanoparticle-LC interactions by solid-state NMR and FTIR spectroscopies. <i>Liquid Crystals</i> , 2019 , 46, 1067-1078	2.3	3
161	Infrared Spectra of Gas Hydrates from First-Principles. <i>Journal of Physical Chemistry B</i> , 2019 , 123, 936-947	3.4	9
160	Extracting shape from curvature evolution in moving surfaces. <i>Soft Matter</i> , 2018 , 14, 1465-1473	3.6	3
159	Molecular Dynamics Characterization of Temperature and Pressure Effects on the Water-Methane Interface. <i>Colloids and Interface Science Communications</i> , 2018 , 24, 75-81	5.4	10
158	Electrorheological Model Based on Liquid Crystals Membranes with Applications to Outer Hair Cells. <i>Fluids</i> , 2018 , 3, 35	1.6	3
157	Multi-step modeling of liquid crystals using ab initio molecular packing and hybrid quantum mechanics/molecular mechanics simulations. <i>Journal of Theoretical and Computational Chemistry</i> , 2017 , 16, 1750012	1.8	1
156	Generalized Boussinesq-Scriven surface fluid model with curvature dissipation for liquid surfaces and membranes. <i>Journal of Colloid and Interface Science</i> , 2017 , 503, 103-114	9.3	8
155	Molecular dynamics of dilute binary chromonic liquid crystal mixtures. <i>Molecular Systems Design and Engineering</i> , 2017 , 2, 223-234	4.6	8
154	Morphology of elastic nematic liquid crystal membranes. <i>Soft Matter</i> , 2017 , 13, 5366-5380	3.6	12
153	Two negative minima of the first normal stress difference in a cellulose-based cholesteric liquid crystal: Helix uncoiling. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2017 , 55, 821-830	2.6	11
152	Effect of Guest Size on the Mechanical Properties and Molecular Structure of Gas Hydrates from First-Principles. <i>Crystal Growth and Design</i> , 2017 , 17, 6407-6416	3.5	23
151	Molecular mobility in carbon dioxide hydrates. <i>Molecular Systems Design and Engineering</i> , 2017 , 2, 500-506	4.6	3

150	Biological plywood film formation from para-nematic liquid crystalline organization. <i>Soft Matter</i> , 2017 , 13, 8076-8088	3.6	13
149	Nanoscale interfacial defect shedding in a growing nematic droplet. <i>Physical Review E</i> , 2017 , 96, 022707	2.4	1
148	The twist-to-bend compliance of the Rheum rhabarbarum petiole: integrated computations and experiments. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2017 , 20, 343-354	2.1	6
147	Theory and Simulation of Cholesteric Film Formation Flows of Dilute Collagen Solutions. <i>Langmuir</i> , 2016 , 32, 11799-11812	4	14
146	Geometric reconstruction of biological orthogonal plywoods. <i>Soft Matter</i> , 2016 , 12, 1184-91	3.6	5
145	Atomistic modeling of structure II gas hydrate mechanics: Compressibility and equations of state. <i>AIP Advances</i> , 2016 , 6, 085317	1.5	17
144	Hydrogen-Bonded Liquid Crystal Nanocomposites. <i>Langmuir</i> , 2016 , 32, 8442-50	4	11
143	Nematic Liquid Crystals under Conical Capillary Confinement: Theoretical Study of Geometry Effects on Disclination Lines. <i>Molecular Crystals and Liquid Crystals</i> , 2015 , 612, 56-63	0.5	
142	DFT Study of Gold Surfaces-Ligand Interactions: Alkanethiols versus Halides. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 11909-11913	3.8	5
141	Theory and simulation of ovoidal disclination loops in nematic liquid crystals under conical confinement. <i>Liquid Crystals</i> , 2015 , 42, 506-519	2.3	3
140	Ideal Strength of Methane Hydrate and Ice Ih from First-Principles. <i>Crystal Growth and Design</i> , 2015 , 15, 5301-5309	3.5	25
139	Nano-scale surface wrinkling in chiral liquid crystals and plant-based plywoods. <i>Soft Matter</i> , 2015 , 11, 1127-39	3.6	13
138	Ab initio DFT study of structural and mechanical properties of methane and carbon dioxide hydrates. <i>Molecular Simulation</i> , 2015 , 41, 572-579	2	24
137	Computational study of the elastic properties of Rheum rhabarbarum tissues via surrogate models of tissue geometry. <i>Journal of Structural Biology</i> , 2014 , 185, 285-94	3.4	14
136	Structure and dynamics of biological liquid crystals. <i>Liquid Crystals</i> , 2014 , 41, 430-451	2.3	23
135	Stress-sensor device based on flexoelectric liquid crystalline membranes. <i>ChemPhysChem</i> , 2014 , 15, 1405-12	3.12	5
134	Dynamic wetting model for the isotropic-to-nematic transition over a flat substrate. <i>Soft Matter</i> , 2014 , 10, 1611-20	3.6	8
133	Theoretical predictions of disclination loop growth for nematic liquid crystals under capillary confinement. <i>Physical Review E</i> , 2014 , 90, 042501	2.4	9

132	Self-assembly via branching morphologies in nematic liquid-crystal nanocomposites. <i>Physical Review E</i> , 2014 , 90, 020501	2.4	7
131	Nanostructured free surfaces in plant-based plywoods driven by chiral capillarity. <i>Colloids and Interface Science Communications</i> , 2014 , 1, 23-26	5.4	14
130	Actuation of flexoelectric membranes in viscoelastic fluids with applications to outer hair cells. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2014 , 372,	3	11
129	Chiral graded structures in biological plywoods and in the beetle cuticle. <i>Colloids and Interface Science Communications</i> , 2014 , 3, 18-22	5.4	6
128	Structure characterisation method for ideal and non-ideal twisted plywoods. <i>Soft Matter</i> , 2014 , 10, 9446-9453	3.5	8
127	Oscillating fronts produced by spinodal decomposition of metastable ordered phases. <i>Soft Matter</i> , 2013 , 9, 10335	3.6	1
126	Defect textures in polygonal arrangements of cylindrical inclusions in cholesteric liquid crystal matrices. <i>Soft Matter</i> , 2013 , 9, 1054-1065	3.6	10
125	Bioinspired model of mechanical energy harvesting based on flexoelectric membranes. <i>Physical Review E</i> , 2013 , 87, 022505	2.4	14
124	Ab initio DFT study of 6-mercapto-hexane SAMs: effect of Au surface defects on the monolayer assembly. <i>Molecular Simulation</i> , 2013 , 39, 292-298	2	6
123	A Multiscale Mechanical Model for Plant Tissue Stiffness. <i>Polymers</i> , 2013 , 5, 730-750	4.5	11
122	Disclination Shape Analysis for Nematic Liquid Crystals under Micron-range Capillary Confinement. <i>Materials Research Society Symposia Proceedings</i> , 2013 , 1526, 1		1
121	Invited review liquid crystal models of biological materials and silk spinning. <i>Biopolymers</i> , 2012 , 97, 374-382	2.6	39
120	Phase equilibrium and structure formation in gold nanoparticles in nematic liquid crystal composites: experiments and theory. <i>Soft Matter</i> , 2012 , 8, 2860	3.6	29
119	Thermodynamic Modelling of Phase Equilibrium in Nanoparticles in Nematic Liquid Crystals Composites. <i>Molecular Crystals and Liquid Crystals</i> , 2012 , 553, 118-126	0.5	13
118	Characterization of Pressure Effects on the Cohesive Properties and Structure of Hexane and Polyethylene Using Molecular Dynamics Simulations. <i>Macromolecular Theory and Simulations</i> , 2012 , 21, 535-543	1.5	6
117	Rheological Theory and Simulation of Surfactant Nematic Liquid Crystals		7
116	Linear oscillatory dynamics of flexoelectric membranes embedded in viscoelastic media with applications to outer hair cells. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2012 , 185-186, 1-17	2.7	15
115	Theory and modeling of nematic disclination branching under capillary confinement. <i>Soft Matter</i> , 2012 , 8, 11135	3.6	12

114	Hedgehog defects in mixtures of a nematic liquid crystal and a non-nematogenic component. <i>Soft Matter</i> , 2012 , 8, 1395-1403	3.6	11
113	Modelling complex liquid crystal mixtures: from polymer dispersed mesophase to nematic nanocolloids. <i>Molecular Simulation</i> , 2012 , 38, 735-750	2	20
112	Hierarchical Microstructure and Elastic Properties of Leaf Petiole Tissue in <i>Philodendron melinonii</i> . <i>Materials Research Society Symposia Proceedings</i> , 2012 , 1420, 67		
111	A good and computationally efficient polynomial approximation to the Maier-Saupe nematic free energy. <i>Liquid Crystals</i> , 2011 , 38, 201-205	2.3	10
110	Faceted particles embedded in a nematic liquid crystal matrix: Textures, stability and filament formation. <i>Soft Matter</i> , 2011 , 7, 8592	3.6	9
109	Mechanical model for fiber-laden membranes. <i>Continuum Mechanics and Thermodynamics</i> , 2011 , 23, 45-61	3.5	5
108	A model for mesophase wetting thresholds of sheets, fibers and fiber bundles. <i>Soft Matter</i> , 2011 , 7, 5003	3.6	9
107	Microfibril organization modes in plant cell walls of variable curvature: a model system for two dimensional anisotropic soft matter. <i>Soft Matter</i> , 2011 , 7, 7078	3.6	6
106	Modeling Textural Processes during Self-Assembly of Plant-Based Chiral-Nematic Liquid Crystals. <i>Polymers</i> , 2010 , 2, 766-785	4.5	18
105	Towards understanding palladium doping of carbon supports: a first-principles molecular dynamics investigation. <i>Journal of Materials Chemistry</i> , 2010 , 20, 6859		2
104	Liquid crystal models of biological materials and processes. <i>Soft Matter</i> , 2010 , 6, 3402	3.6	164
103	Micromechanics model of liquid crystal anisotropic triple lines with applications to self-assembly. <i>Langmuir</i> , 2010 , 26, 13033-7	4	9
102	Energetics and dynamics of hydrogen adsorption, desorption and migration on a carbon-supported palladium cluster. <i>Journal of Materials Chemistry</i> , 2010 , 20, 10503		14
101	Edge dislocation core structure in lamellar smectic-A liquid crystals. <i>Soft Matter</i> , 2010 , 6, 1117	3.6	9
100	Thermodynamic Model of Structure and Shape in Rigid Polymer-Laden Membranes. <i>Macromolecular Theory and Simulations</i> , 2010 , 19, 113-126	1.5	2
99	Structure and rheology of fiber-laden membranes via integration of nematodynamics and membranodynamics. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2010 , 165, 32-44	2.7	12
98	Thermodynamic Modeling of Polymer Solution Interface. <i>Macromolecular Theory and Simulations</i> , 2009 , 18, 127-137	1.5	12
97	Interfacial properties of compressible polymer solutions. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2009 , 47, 640-654	2.6	8

96	Thermodynamics, Transition Dynamics, and Texturing in Polymer-Dispersed Liquid Crystals with Mesogens Exhibiting a Direct Isotropic/Smectic-A Transition. <i>Macromolecules</i> , 2009 , 42, 9486-9497	5.5	29
95	Thermodynamic modelling of carbonaceous mesophase mixtures. <i>Liquid Crystals</i> , 2009 , 36, 75-92	2.3	11
94	Metastable Nematic Preordering in Smectic Liquid Crystalline Phase Transitions. <i>Macromolecules</i> , 2009 , 42, 3841-3844	5.5	10
93	Shape-dynamic growth, structure, and elasticity of homogeneously oriented spherulites in an isotropic/smectic-A mesophase transition. <i>Liquid Crystals</i> , 2009 , 36, 1125-1137	2.3	7
92	Non-classical scaling for forced wetting of a nematic fluid on a polymeric fiber. <i>Soft Matter</i> , 2009 , 5, 2277-6	3.6	4
91	Mechanical model for filament buckling and growth by phase ordering. <i>Langmuir</i> , 2008 , 24, 662-5	4	4
90	Entropic Behavior of Binary Carbonaceous Mesophases. <i>Entropy</i> , 2008 , 10, 183-199	2.8	10
89	Linear viscoelastic model for bending and torsional modes in fluid membranes. <i>Rheologica Acta</i> , 2008 , 47, 861-871	2.3	15
88	Capillary models for liquid crystal fibers, membranes, films, and drops. <i>Soft Matter</i> , 2007 , 3, 1349-1368	3.6	77
87	Nanoscale analysis of defect shedding from liquid crystal interfaces. <i>Nano Letters</i> , 2007 , 7, 1474-9	11.5	35
86	Growth and structure of nematic spherulites under shallow thermal quenches. <i>Continuum Mechanics and Thermodynamics</i> , 2007 , 19, 37-58	3.5	24
85	Ringlike cores of cylindrically confined nematic point defects. <i>Journal of Chemical Physics</i> , 2007 , 126, 094907	3.9	26
84	Point and ring defects in nematics under capillary confinement. <i>Journal of Chemical Physics</i> , 2007 , 127, 104902	3.9	36
83	Computational modelling of nematic phase ordering by film and droplet growth over heterogeneous substrates. <i>Liquid Crystals</i> , 2007 , 34, 1397-1413	2.3	14
82	Magnetic Field-Induced Shape Transitions in Multiphase Polymer-Liquid Crystal Blends. <i>Macromolecular Theory and Simulations</i> , 2006 , 15, 469-486	1.5	8
81	Liquid crystal model of membrane flexoelectricity. <i>Physical Review E</i> , 2006 , 74, 011710	2.4	23
80	Dynamic interactions between nematic point defects in the spinning extrusion duct of spiders. <i>Journal of Chemical Physics</i> , 2006 , 124, 144904	3.9	9
79	Interfacial nematodynamics of heterogeneous curved isotropic-nematic moving fronts. <i>Journal of Chemical Physics</i> , 2006 , 124, 244902	3.9	26

78	Mechanical model for anisotropic curved interfaces with applications to surfactant-laden liquid-liquid crystal interfaces. <i>Langmuir</i> , 2006 , 22, 219-28	4	24
77	Anisotropic fluctuation model for surfactant-laden liquid-liquid crystal interfaces. <i>Langmuir</i> , 2006 , 22, 3491-3	4	10
76	Computational thermodynamics of multiphase polymer-liquid crystal materials. <i>Computational Materials Science</i> , 2006 , 38, 325-339	3.2	9
75	Polar fluid model of viscoelastic membranes and interfaces. <i>Journal of Colloid and Interface Science</i> , 2006 , 304, 226-38	9.3	18
74	Steady state and transient rheological behavior of mesophase pitch, Part II: Theory. <i>Journal of Rheology</i> , 2005 , 49, 175-195	4.1	13
73	Optical and structural modeling of disclination lattices in carbonaceous mesophases. <i>Journal of Chemical Physics</i> , 2005 , 122, 34902	3.9	11
72	Texture rules for concentrated filled nematics. <i>Physical Review Letters</i> , 2005 , 95, 127802	7.4	27
71	Mechanics of soft-solid-liquid-crystal interfaces. <i>Physical Review E</i> , 2005 , 72, 011706	2.4	21
70	Thermodynamics of soft anisotropic contact lines. <i>Journal of Chemical Physics</i> , 2004 , 121, 2390-402	3.9	3
69	Line tension vector thermodynamics of anisotropic contact lines. <i>Physical Review E</i> , 2004 , 69, 041707	2.4	9
68	Thermodynamics of soft anisotropic interfaces. <i>Journal of Chemical Physics</i> , 2004 , 120, 2010-9	3.9	24
67	Texture formation under phase ordering and phase separation in polymer-liquid crystal mixtures. <i>Journal of Chemical Physics</i> , 2004 , 121, 9733-43	3.9	33
66	Impact of texture on stress growth in thermotropic liquid crystalline polymers subjected to step-shear. <i>Rheologica Acta</i> , 2004 , 44, 135-149	2.3	9
65	Interfacial Thermodynamics of Polymeric Mesophases. <i>Macromolecular Theory and Simulations</i> , 2004 , 13, 686-696	1.5	7
64	Chiral front propagation in liquid-crystalline materials: Formation of the planar monodomain twisted plywood architecture of biological fibrous composites. <i>Physical Review E</i> , 2004 , 69, 011706	2.4	32
63	Thermodynamic model of surfactant adsorption on soft liquid crystal interfaces. <i>Langmuir</i> , 2004 , 20, 11473-9	4	17
62	Texture dependence of capillary instabilities in nematic liquid crystalline fibres. <i>Liquid Crystals</i> , 2004 , 31, 1271-1284	2.3	13
61	Computational modelling of multi-phase equilibria of mesogenic mixtures. <i>Computational Materials Science</i> , 2004 , 29, 152-164	3.2	12

60	Simulation of texture formation processes in carbonaceous mesophase fibres. <i>Liquid Crystals</i> , 2003 , 30, 377-389	2.3	11
59	Transient rheology of discotic mesophases. <i>Rheologica Acta</i> , 2003 , 42, 590-604	2.3	22
58	A Model of Capillary Rise of Nematic Liquid Crystals. <i>Langmuir</i> , 2003 , 19, 3677-3685	4	11
57	Shear-induced textural transitions in flow-aligning liquid crystal polymers. <i>Physical Review E</i> , 2003 , 68, 061704	2.4	25
56	Theoretical and Computational Rheology for Discotic Nematic Liquid Crystals. <i>Molecular Crystals and Liquid Crystals</i> , 2003 , 391, 57-94	0.5	26
55	Nematostatics of triple lines. <i>Physical Review E</i> , 2003 , 67, 011706	2.4	17
54	Capillary Thermodynamics of Nematic Polymer Interfaces. <i>Macromolecular Theory and Simulations</i> , 2002 , 11, 944-952	1.5	2
53	Capillary instabilities in a thin nematic liquid crystalline fiber embedded in a viscous matrix. <i>Continuum Mechanics and Thermodynamics</i> , 2002 , 14, 263-279	3.5	3
52	Cahn-Hoffman capillarity vector thermodynamics for liquid crystal interfaces. <i>Physical Review E</i> , 2002 , 66, 021704	2.4	21
51	Generalized cholesteric permeation flows. <i>Physical Review E</i> , 2002 , 65, 022701	2.4	16
50	Cahn-Hoffman capillarity vector thermodynamics for curved liquid crystal interfaces with applications to fiber instabilities. <i>Journal of Chemical Physics</i> , 2002 , 117, 5062-5071	3.9	28
49	Defect Nucleation and Annihilation in Sheared Polymeric Liquid Crystals. <i>Materials Research Society Symposia Proceedings</i> , 2002 , 734, 441		1
48	Simulation of chiral liquid crystal self-assembly: analogies with the structural formation of biological fibrous composites. <i>Materials Research Society Symposia Proceedings</i> , 2002 , 735, 741		
47	DYNAMICAL PHENOMENA IN LIQUID-CRYSTALLINE MATERIALS. <i>Annual Review of Fluid Mechanics</i> , 2002 , 34, 233-266	22	168
46	Simple shear and small amplitude oscillatory rectilinear shear permeation flows of cholesteric liquid crystals. <i>Journal of Rheology</i> , 2002 , 46, 225-240	4.1	25
45	Generalized Young-Laplace Equation for Nematic Liquid Crystal Interfaces and its Application to Free-Surface Defects. <i>Molecular Crystals and Liquid Crystals</i> , 2001 , 369, 63-74		8
44	Mechanical Theory for Nematic Thin Films. <i>Langmuir</i> , 2001 , 17, 1922-1927	4	7
43	Computational Modelling of Mesophase Pitches and Shear Rheology. <i>Materials Research Society Symposia Proceedings</i> , 2001 , 709, 1		

- 42 Capillary Instabilities in a Thin Nematic Liquid Crystalline Fiber Embedded in a Viscous Matrix. *Materials Research Society Symposia Proceedings*, **2001**, 709, 1
- 41 Theory and Simulation of Texture Transformations in Chiral Systems: Applications to Biological Fibrous Composites. *Materials Research Society Symposia Proceedings*, **2001**, 709, 1
- 40 Mechanical theory of structural disjoining pressure in liquid crystal films. *Physical Review E*, **2000**, 61, 4632-5 2.4 6
- 39 Young-Laplace equation for liquid crystal interfaces. *Journal of Chemical Physics*, **2000**, 113, 10820-10822 3.9 21
- 38 Viscoelastic theory for nematic interfaces. *Physical Review E*, **2000**, 61, 1540-9 2.4 38
- 37 Theory of linear viscoelasticity of cholesteric liquid crystals. *Journal of Rheology*, **2000**, 44, 855-869 4.1 28
- 36 Nematic contact lines and the Neumann and Young equations for liquid crystals. *Journal of Chemical Physics*, **1999**, 111, 7675-7684 3.9 13
- 35 Tension gradients and Marangoni flows in nematic interfaces. *Physical Review E*, **1999**, 60, 1077-80 2.4 5
- 34 Marangoni flow in liquid crystal interfaces. *Journal of Chemical Physics*, **1999**, 110, 9769-9770 3.9 34
- 33 Analysis of Liquid Crystalline Fiber Coatings. *Molecular Crystals and Liquid Crystals*, **1999**, 333, 15-23 3
- 32 Nemato-capillarity theory and the orientation-induced Marangoni flow. *Liquid Crystals*, **1999**, 26, 913-917 2.3 17
- 31 Recent advances in theoretical liquid crystal rheology. *Macromolecular Theory and Simulations*, **1998**, 7, 623-639 1.5 67
- 30 Computational Modeling of Multiple Domain Pattern Formation. *Materials Research Society Symposia Proceedings*, **1998**, 538, 197 1
- 29 Recent advances in theoretical liquid crystal rheology **1998**, 7, 623 4
- 28 Theory and Simulation of Gas Diffusion in Cholesteric Liquid Crystal Films. *Molecular Crystals and Liquid Crystals*, **1997**, 293, 87-109 11
- 27 Stability Analysis of Catenoidal Shaped Liquid Crystalline Polymer Networks. *Macromolecules*, **1997**, 30, 7582-7587 5.5 2
- 26 Thermodynamic Stability Analysis of Liquid-Crystalline Polymer Fibers. *Industrial & Engineering Chemistry Research*, **1997**, 36, 1114-1121 3.9 8
- 25 Polymerization-Induced Phase Separation. 2. Morphological Analysis. *Macromolecules*, **1997**, 30, 2135-2143 3.3 70

24	Fiber stability analysis for in-situ liquid crystalline polymer composites. <i>Polymer Composites</i> , 1997 , 18, 687-691	3	5
23	Effect of long range order on sheared liquid crystalline materials Part 1: compatibility between tumbling behavior and fixed anchoring. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 1997 , 73, 127-152	2.7	96
22	Polymerization-Induced Phase Separation. 1. Droplet Size Selection Mechanism. <i>Macromolecules</i> , 1996 , 29, 8934-8941	5.5	71
21	Residual normal force after cessation of squeezing flow of liquid crystalline polymers. <i>Journal of Rheology</i> , 1996 , 40, 1233-1237	4.1	3
20	Flow alignment in the helix uncoiling of sheared cholesteric liquid crystals. <i>Physical Review E</i> , 1996 , 53, 4198-4201	2.4	39
19	Structural transformations and viscoelastic response of sheared fingerprint cholesteric textures. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 1996 , 64, 207-227	2.7	18
18	Phenomenological theory of textured mesophase polymers in weak flows. <i>Macromolecular Theory and Simulations</i> , 1996 , 5, 863-876	1.5	3
17	Theory of linear viscoelasticity of chiral liquid crystals. <i>Rheologica Acta</i> , 1996 , 35, 400-409	2.3	9
16	Helix uncoiling modes of sheared cholesteric liquid crystals. <i>Journal of Chemical Physics</i> , 1996 , 104, 4343-4346	3.9	8
15	Flow-alignment and viscosity rules for single-phase binary mesomorphic mixtures. <i>Liquid Crystals</i> , 1996 , 20, 147-159	2.3	5
14	Computer simulation of dynamics and morphology of discotic mesophases in extensional flows. <i>Liquid Crystals</i> , 1995 , 18, 219-230	2.3	17
13	Bifurcational analysis of the isotropic-discotic nematic phase transition in the presence of extensional flow. <i>Liquid Crystals</i> , 1995 , 19, 325-331	2.3	5
12	Bifurcational analysis of the isotropic-nematic phase transition of rigid rod polymers subjected to biaxial stretching flow. <i>Macromolecular Theory and Simulations</i> , 1995 , 4, 857-872	1.5	23
11	Computational analysis of spinodal decomposition dynamics in polymer solutions. <i>Macromolecular Theory and Simulations</i> , 1995 , 4, 873-899	1.5	38
10	Shear flows of nematic polymers. I. Orienting modes, bifurcations, and steady state rheological predictions. <i>Journal of Rheology</i> , 1993 , 37, 289-314	4.1	55
9	Bifurcations and traveling waves in a delayed partial differential equation. <i>Chaos</i> , 1992 , 2, 231-244	3.3	16
8	Defect Dynamics of a Nematic Polymer in a Magnetic Field. <i>Materials Research Society Symposia Proceedings</i> , 1990 , 209, 299		1
7	Defect controlled dynamics of nematic liquids. <i>Liquid Crystals</i> , 1990 , 7, 315-334	2.3	30

6	Defect-mediated transition in a nematic flow. <i>Journal of Rheology</i> , 1990 , 34, 919-942	4.1	6
5	Radial creeping flow of rod-like nematic liquid crystals. <i>Journal of Rheology</i> , 1990 , 34, 425-467	4.1	11
4	Analysis of transient periodic textures in nematic polymers. <i>Liquid Crystals</i> , 1989 , 4, 409-422	2.3	27
3	Converging flow of tumbling nematic liquid crystals. <i>Liquid Crystals</i> , 1989 , 4, 253-272	2.3	19
2	Radial Creeping Flow Between Parallel Disks of Rod-like Nematic Liquid Crystals: Textures and Instabilities. <i>Materials Research Society Symposia Proceedings</i> , 1989 , 177, 317		
1	Jeffrey-Hamel flow of Leslie-Ericksen nematic liquids. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 1988 , 27, 375-401	2.7	18