## Robert Holyst

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/3933284/publications.pdf

Version: 2024-02-01

256 papers

6,399 citations

66343 42 h-index 63 g-index

264 all docs

264 docs citations

times ranked

264

6299 citing authors

#	Article	IF	CITATIONS
1	Ion Complexation Explains Orders of Magnitude Changes in the Equilibrium Constant of Biochemical Reactions in Buffers Crowded by Nonionic Compounds. Journal of Physical Chemistry Letters, 2022, 13, 112-117.	4.6	3
2	Transient dynamics in the outflow of energy from a system in a nonequilibrium stationary state. Physical Review E, 2022, $105$ , .	2.1	3
3	Entanglement of polymer chains in hypertonic medium enhances the delivery of DNA and other biomacromolecules into cells. Journal of Colloid and Interface Science, 2022, 627, 270-282.	9.4	2
4	Quantifying Nanoscale Viscosity and Structures of Living Cells Nucleus from Mobility Measurements. Journal of Physical Chemistry Letters, 2021, 12, 294-301.	4.6	12
5	Cellular delivery of dinucleotides by conjugation with small molecules: targeting translation initiation for anticancer applications. Chemical Science, 2021, 12, 10242-10251.	7.4	6
6	Influence of molecular rebinding on the reaction rate of complex formation. Physical Chemistry Chemical Physics, 2021, 23, 19343-19351.	2.8	1
7	Macroscopic Viscosity of Polymer Solutions from the Nanoscale Analysis. ACS Applied Polymer Materials, 2021, 3, 2813-2822.	4.4	6
8	Adsorption of bacteriophages on polypropylene labware affects the reproducibility of phage research. Scientific Reports, 2021, 11, 7387.	3.3	29
9	Two Intercalation Mechanisms of Oxazole Yellow Dimer (YOYO-1) into DNA. Molecules, 2021, 26, 3748.	3.8	1
10	Continuous nonequilibrium transition driven by heat flow. Physical Review E, 2021, 104, 024102.	2.1	5
11	Internal energy in compressible Poiseuille flow. Physical Review E, 2021, 104, 055107.	2.1	1
12	Quantitative analysis of biochemical processes in living cells at a single-molecule level: a case of olaparib–PARP1 (DNA repair protein) interactions. Analyst, The, 2021, 146, 7131-7143.	3.5	7
13	Diffusion and flow in complex liquids. Soft Matter, 2020, 16, 114-124.	2.7	20
14	Single-molecule brightness analysis for the determination of anticancer drug interactions with DNA. Analyst, The, 2020, 145, 6600-6606.	3.5	6
15	Ions in an AC Electric Field: Strong Long-Range Repulsion between Oppositely Charged Surfaces. Physical Review Letters, 2020, 125, 056001.	7.8	17
16	Nanoscale Viscosity of Cytoplasm Is Conserved in Human Cell Lines. Journal of Physical Chemistry Letters, 2020, 11, 6914-6920.	4.6	33
17	Recent Progress in the Detection of Bacteria Using Bacteriophages: A Review. Viruses, 2020, 12, 845.	3.3	42
18	Cell extract gels as an example of active matter. Rheologica Acta, 2020, 59, 575-582.	2.4	1

#	Article	IF	CITATIONS
19	Transport of nanoprobes in multicellular spheroids. Nanoscale, 2020, 12, 19880-19887.	5.6	9
20	Self-Stabilized Giant Aggregates in Water from Room-Temperature Ionic Liquids with an Asymmetric Polar–Apolar–Polar Architecture. Journal of Physical Chemistry B, 2020, 124, 4651-4660.	2.6	0
21	Storage of Energy in Constrained Non-Equilibrium Systems. Entropy, 2020, 22, 557.	2.2	4
22	Energy storage in steady states under cyclic local energy input. Physical Review E, 2020, 101, 012127.	2.1	2
23	Scaling equation for viscosity of polydimethylsiloxane in ethyl acetate: From dilute to concentrated solutions. Polymer, 2020, 203, 122779.	3.8	5
24	Photoluminescent, Ferromagnetic, and Hydrophobic Sponges for Oil–Water Separation. ACS Omega, 2020, 5, 15077-15082.	3.5	13
25	Fast and efficient deposition of broad range of analytes on substrates for surface enhanced Raman spectroscopy. Biosensors and Bioelectronics, 2020, 156, 112124.	10.1	18
26	Analysis of Brightness of a Single Fluorophore for Quantitative Characterization of Biochemical Reactions. Journal of Physical Chemistry B, 2020, 124, 1941-1948.	2.6	10
27	TMAO, a seafood-derived molecule, produces diuresis and reduces mortality in heart failure rats. ELife, 2020, 9, .	6.0	32
28	Joint effect of surfactants and cephalexin on the formation of Escherichia coli filament. Ecotoxicology and Environmental Safety, 2020, 199, 110750.	6.0	4
29	Phenotypic plasticity of Escherichia coli upon exposure to physical stress induced by ZnO nanorods. Scientific Reports, 2019, 9, 8575.	3.3	19
30	Micro-engineered liquid flow dissolves solids without dispersing them. Nature, 2019, 574, 181-182.	27.8	3
31	Stability of cytoplasmic nanoviscosity during cell cycle of HeLa cells synchronized with Aphidicolin. Scientific Reports, 2019, 9, 16486.	3.3	9
32	TMA, A Forgotten Uremic Toxin, but Not TMAO, Is Involved in Cardiovascular Pathology. Toxins, 2019, 11, 490.	3.4	81
33	Fluorescence correlation spectroscopy for multiple-site equilibrium binding: a case of doxorubicin–DNA interaction. Physical Chemistry Chemical Physics, 2019, 21, 1572-1577.	2.8	20
34	Kinetics and equilibrium constants of oligonucleotides at low concentrations. Hybridization and melting study. Physical Chemistry Chemical Physics, 2019, 21, 10798-10807.	2.8	24
35	Determination of oligomerization state of Drp1 protein in living cells at nanomolar concentrations. Scientific Reports, 2019, 9, 5906.	3.3	27
36	Flux and storage of energy in nonequilibrium stationary states. Physical Review E, 2019, 99, 042118.	2.1	13

3

#	Article	IF	CITATIONS
37	Propagation of Oscillating Chemical Signals through Reaction Networks. Angewandte Chemie, 2019, 131, 4568-4573.	2.0	2
38	Propagation of Oscillating Chemical Signals through Reaction Networks. Angewandte Chemie - International Edition, 2019, 58, 4520-4525.	13.8	5
39	Abstract P3021: Trimethylamine but Not Trimethylamine N-Oxide Increases Blood Pressure in Rats, Affects Viability of Vascular Smooth Muscle Cells and Degrades Protein Structure. Hypertension, 2019, 74, .	2.7	0
40	Recent advances in bacteriophage-based methods for bacteria detection. Drug Discovery Today, 2018, 23, 448-455.	6.4	101
41	Insight into the fission mechanism by quantitative characterization of Drp1 protein distribution in the living cell. Scientific Reports, 2018, 8, 8122.	3.3	35
42	Analytical form of the autocorrelation function for the fluorescence correlation spectroscopy. Soft Matter, 2017, 13, 1267-1275.	2.7	4
43	Scaling Equation for Viscosity of Polymer Mixtures in Solutions with Application to Diffusion of Molecular Probes. Macromolecules, 2017, 50, 4555-4561.	4.8	17
44	Dense Layer of Bacteriophages Ordered in Alternating Electric Field and Immobilized by Surface Chemical Modification as Sensing Element for Bacteria Detection. ACS Applied Materials & Samp; Interfaces, 2017, 9, 19622-19629.	8.0	36
45	Surface-enhanced Raman spectroscopy introduced into the International Standard Organization (ISO) regulations as an alternative method for detection and identification of pathogens in the food industry. Analytical and Bioanalytical Chemistry, 2017, 409, 1555-1567.	3.7	49
46	Bacteriophage-Based Bioconjugates as a Flow Cytometry Probe for Fast Bacteria Detection. Bioconjugate Chemistry, 2017, 28, 419-425.	3.6	38
47	Apparent Anomalous Diffusion in the Cytoplasm of Human Cells: The Effect of Probes' Polydispersity. Journal of Physical Chemistry B, 2017, 121, 9831-9837.	2.6	39
48	Evaporation of liquid droplets of nano- and micro-meter size as a function of molecular mass and intermolecular interactions: experiments and molecular dynamics simulations. Soft Matter, 2017, 13, 5858-5864.	2.7	21
49	Nanoscopic Approach to Quantification of Equilibrium and Rate Constants of Complex Formation at Single-Molecule Level. Journal of Physical Chemistry Letters, 2017, 8, 5785-5791.	4.6	8
50	Quantitative fluorescence correlation spectroscopy in three-dimensional systems under stimulated emission depletion conditions. Optica, 2017, 4, 982.	9.3	11
51	Denaturation of proteins by surfactants studied by the Taylor dispersion analysis. PLoS ONE, 2017, 12, e0175838.	2.5	22
52	How can macromolecular crowding inhibit biological reactions? The enhanced formation of DNA nanoparticles. Scientific Reports, 2016, 6, 22033.	3.3	19
53	Antibacterial and anticancer PDMS surface for mammalian cell growth using the Chinese herb extract paeonol(4-methoxy-2-hydroxyacetophenone). Scientific Reports, 2016, 6, 38973.	3.3	28
54	Influence of nanomechanical stress induced by ZnO nanoparticles of different shapes on the viability of cells. Soft Matter, 2016, 12, 4162-4169.	2.7	18

#	Article	IF	CITATIONS
55	Photoactive Langmuir–Blodgett, Freely Suspended and Free Standing Films of Carboxylate Ligand-Coated ZnO Nanocrystals. ACS Applied Materials & Therfaces, 2016, 8, 13532-13541.	8.0	20
56	Determination of equilibrium and rate constants for complex formation by fluorescence correlation spectroscopy supplemented by dynamic light scattering and Taylor dispersion analysis. Soft Matter, 2016, 12, 8186-8194.	2.7	20
57	Ordering of bacteriophages in the electric field: Application for bacteria detection. Sensors and Actuators B: Chemical, 2016, 224, 233-240.	7.8	30
58	The Hinge Region Strengthens the Nonspecific Interaction between Lac-Repressor and DNA: A Computer Simulation Study. PLoS ONE, 2016, 11, e0152002.	2.5	6
59	Motion of Molecular Probes and Viscosity Scaling in Polyelectrolyte Solutions at Physiological Ionic Strength. PLoS ONE, 2016, 11, e0161409.	2.5	7
60	Method for the analysis of contribution of sliding and hopping to a facilitated diffusion of DNA-binding protein: Application toin vivodata. Physical Review E, 2015, 92, 022721.	2.1	4
61	Small Crowders Slow Down Kinesin-1 Stepping by Hindering Motor Domain Diffusion. Physical Review Letters, 2015, 115, 218102.	7.8	34
62	Towards Organized Hybrid Nanomaterials at the Air/Water Interface Based on Liquidâ€Crystal/ZnO Nanocrystals. Chemistry - A European Journal, 2015, 21, 16941-16947.	3.3	22
63	Gold–Oxoborate Nanocomposites and Their Biomedical Applications. ACS Applied Materials & Discrete Section 1. (2015) Applied Materials & Discrete Section 2015, 7, 3931-3939.	8.0	16
64	Hollow microtubes made of carbon, boron and gold: novel semiconducting nanocomposite material for applications in electrochemistry and temperature sensing. RSC Advances, 2015, 5, 64083-64090.	3.6	2
65	Manipulation of multiple-responsive fluorescent supramolecular materials based on the inclusion complexation of cyclodextrins with Tyloxapol. Journal of Materials Chemistry C, 2015, 3, 8104-8113.	5.5	28
66	Sterilization of polydimethylsiloxane surface with Chinese herb extract: a new antibiotic mechanism of chlorogenic acid. Scientific Reports, 2015, 5, 10464.	3.3	18
67	Motion of nanoprobes in complex liquids within the framework of the length-scale dependent viscosity model. Advances in Colloid and Interface Science, 2015, 223, 55-63.	14.7	66
68	Go with the flow. Nature Physics, 2015, 11, 305-306.	16.7	1
69	Tracking structural transitions of bovine serum albumin in surfactant solutions by fluorescence correlation spectroscopy and fluorescence lifetime analysis. Soft Matter, 2015, 11, 2512-2518.	2.7	14
70	A molecular dynamics test of the Hertz–Knudsen equation for evaporating liquids. Soft Matter, 2015, 11, 7201-7206.	2.7	63
71	Langmuir and Langmuir–Blodgett Films of Unsymmetrical and Fully Condensed Polyhedral Oligomeric Silsesquioxanes (POSS). Journal of Physical Chemistry C, 2015, 119, 27007-27017.	3.1	29
72	A method for rapid screening of interactions of pharmacologically active compounds with albumin. Analytica Chimica Acta, 2015, 855, 51-59.	5 <b>.</b> 4	9

#	Article	IF	Citations
73	Towards improved precision in the quantification of surface-enhanced Raman scattering (SERS) enhancement factors: a renewed approach. Analyst, The, 2015, 140, 489-496.	3.5	13
74	Quantitative influence of macromolecular crowding on gene regulation kinetics. Nucleic Acids Research, 2014, 42, 727-738.	14.5	55
75	Electrochemical pathway for the quantification of SERS enhancement factor. Electrochemistry Communications, 2014, 49, 103-106.	4.7	5
76	A flexible fluorescence correlation spectroscopy based method for quantification of the DNA double labeling efficiency with precision control. Laser Physics Letters, 2014, 11, 085602.	1.4	1
77	Fluorescence correlation spectroscopy analysis for accurate determination of proportion of doubly labeled DNA in fluorescent DNA pool for quantitative biochemical assays. Biosensors and Bioelectronics, 2014, 51, 8-15.	10.1	4
78	A depletion layer in polymer solutions at an interface oscillating at the subnano- to submicrometer scale. Soft Matter, 2014, 10, 7762-7768.	2.7	8
79	Length-scale dependent transport properties of colloidal and protein solutions for prediction of crystal nucleation rates. Nanoscale, 2014, 6, 10340-10346.	5.6	15
80	Scaling of activation energy for macroscopic flow in poly(ethylene glycol) solutions: Entangled – Non-entangled crossover. Polymer, 2014, 55, 4651-4657.	3.8	39
81	The effect of macromolecular crowding on mobility of biomolecules, association kinetics, and gene expression in living cells. Frontiers in Physics, 2014, 2, .	2.1	66
82	Structural evolution of reverse vesicles from a salt-free catanionic surfactant system in toluene. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2013, 436, 49-56.	4.7	4
83	A "wrap-and-wrest―mechanism of fluorescence quenching of CdSe/ZnS quantum dots by surfactant molecules. Nanoscale, 2013, 5, 9908.	5.6	14
84	Nanoscale transport of energy and mass flux during evaporation of liquid droplets into inert gas: computer simulations and experiments. Soft Matter, 2013, 9, 7766.	2.7	23
85	Transport of Mass at the Nanoscale during Evaporation of Droplets: the Hertz–Knudsen Equation at the Nanoscale. Journal of Physical Chemistry C, 2013, 117, 1146-1150.	3.1	22
86	A "nano-windmill―driven by a flux of water vapour: a comparison to the rotating ATPase. Nanoscale, 2013, 5, 9732.	5.6	41
87	Taylor Dispersion Analysis in Coiled Capillaries at High Flow Rates. Analytical Chemistry, 2013, 85, 4051-4056.	<b>6.</b> 5	18
88	Implications of macromolecular crowding for protein–protein association kinetics in the cytoplasm of living cells. Soft Matter, 2013, 9, 4386.	2.7	19
89	Electrodeposition for preparation of efficient surface-enhanced Raman scattering-active silver nanoparticle substrates for neurotransmitter detection. Electrochimica Acta, 2013, 89, 284-291.	<b>5.</b> 2	27
90	Evaporation of freely suspended single droplets: experimental, theoretical and computational simulations. Reports on Progress in Physics, 2013, 76, 034601.	20.1	83

#	Article	IF	Citations
91	Fractal trace of earthworms. Physical Review E, 2013, 87, 052120.	2.1	1
92	Self-Assembly of Gold Nanoparticles into 2D Arrays Induced by Bolaamphiphilic Ligands. Journal of Physical Chemistry C, 2013, 117, 24056-24062.	3.1	12
93	Activation Energy for Mobility of Dyes and Proteins in Polymer Solutions: From Diffusion of Single Particles to Macroscale Flow. Physical Review Letters, 2013, 111, 228301.	7.8	38
94	Collapse of a nanoscopic void triggered by a spherically symmetric traveling sound wave. Physical Review E, 2012, 85, 056303.	2.1	8
95	ZnTe nanowires overgrown by atomic layer deposited (Zn,Co) oxides: Raman scattering studies. , 2012, ,		0
96	Biologisticsâ€"Diffusion coefficients for complete proteome of <i>Escherichia coli</i> li>. Bioinformatics, 2012, 28, 2971-2978.	4.1	81
97	GaN-based platforms with Au-Ag alloyed metal layer for surface enhanced Raman scattering. Journal of Applied Physics, 2012, 112, .	2.5	13
98	Stable, ordered multilayers of partially fluorinated bolaamphiphiles at the air–water interface. Soft Matter, 2012, 8, 5262.	2.7	7
99	Three Steps of Hierarchical Self Assembly Toward a Stable and Efficient Surface Enhanced Raman Spectroscopy Platform. Chemistry of Materials, 2012, 24, 3667-3673.	6.7	14
100	Characterization of Caulobacter crescentus FtsZ Protein Using Dynamic Light Scattering. Journal of Biological Chemistry, 2012, 287, 23878-23886.	3.4	26
101	Electrodeposition of Well-Adhered Multifarious Au Particles at a Solid   Toluene   Aqueous Electrolyte Three-Phase Junction. Journal of Physical Chemistry C, 2012, 116, 22476-22485.	3.1	22
102	The effect of depletion layer on diffusion of nanoparticles in solutions of flexible and polydisperse polymers. Soft Matter, 2012, 8, 11173.	2.7	26
103	Spontaneous self-assembly of partially fluorinated bolaamphiphiles into ordered layered structures. Physical Chemistry Chemical Physics, 2012, 14, 14365.	2.8	4
104	Thermodynamics for Chemists, Physicists and Engineers. , 2012, , .		15
105	Immobilization of galactose oxidase on selfâ€assembled monolayers of thiols on Au and Ag surfaces. Journal of Raman Spectroscopy, 2012, 43, 959-962.	2.5	5
106	Formation of net-like patterns of gold nanoparticles in liquid crystal matrix at the air–water interface. Journal of Nanoparticle Research, 2012, 14, 826.	1.9	13
107	Eu(III)-coupled luminescent multi-walled carbon nanotubes in surfactant solutions. Carbon, 2012, 50, 436-443.	10.3	16
108	Close-packed monolayers of charged Janus-type nanoparticles at the air–water interface. Journal of Colloid and Interface Science, 2012, 375, 180-186.	9.4	45

#	Article	IF	Citations
109	Autonomous Selfâ€Assembly of Ionic Nanoparticles into Hexagonally Closeâ€Packed Lattices at a Planar Oil–Water Interface. Chemistry - A European Journal, 2012, 18, 2235-2238.	3.3	10
110	Highly reproducible, stable and multiply regenerated surface-enhanced Raman scattering substrate for biomedical applications. Journal of Materials Chemistry, 2011, 21, 8662.	6.7	65
111	Scale-dependent diffusion of spheres in solutions of flexible and rigid polymers: mean square displacement and autocorrelation function for FCS and DLS measurements. Soft Matter, 2011, 7, 7366.	2.7	54
112	Ionic Strength-Controlled Deposition of Charged Nanoparticles on a Solid Substrate. Journal of Physical Chemistry C, 2011, 115, 19096-19103.	3.1	40
113	Formation and structure of PEI/DNA complexes: quantitative analysis. Soft Matter, 2011, 7, 6967.	2.7	33
114	New One-Pot Technique to Introduce Charged Nanoparticles into a Lyotropic Liquid Crystal Matrix. Langmuir, 2011, 27, 3937-3944.	3.5	3
115	Crossover regime for the diffusion of nanoparticles in polyethylene glycol solutions: influence of the depletion layer. Soft Matter, 2011, 7, 7181.	2.7	94
116	Influence of nano-viscosity and depletion interactions on cleavage of DNA by enzymes in glycerol and poly(ethylene glycol) solutions: qualitative analysis. Soft Matter, 2011, 7, 3092-3099.	2.7	23
117	Comparative Analysis of Viscosity of Complex Liquids and Cytoplasm of Mammalian Cells at the Nanoscale. Nano Letters, 2011, 11, 2157-2163.	9.1	212
118	Gold Micro-Flowers: One-Step Fabrication of Efficient, Highly Reproducible Surface-Enhanced Raman Spectroscopy Platform. Plasmonics, 2011, 6, 697-704.	3.4	23
119	Selected optical properties of core/shell ZnMnTe/ZnO nanowire structures. Physica Status Solidi (B): Basic Research, 2011, 248, 1592-1595.	1.5	10
120	Selfâ€Assembly at Different Length Scales: Polyphilic Starâ€Branched Liquid Crystals and Miktoarm Star Copolymers. Advanced Functional Materials, 2011, 21, 1296-1323.	14.9	91
121	Aggregation and Layering Transitions in Thin Films of Xâ€, Tâ€, and Anchorâ€Shaped Bolaamphiphiles at the Air–Water Interface. Chemistry - A European Journal, 2011, 17, 5861-5873.	3.3	14
122	Ionic polarization of liquid-liquid interfaces; dynamic control of the rate of electro-coalescence. Applied Physics Letters, 2011, 99, .	3.3	11
123	Polymer-induced ordering and phase separation in ionic surfactants. Journal of Colloid and Interface Science, 2010, 342, 93-102.	9.4	11
124	SERS Active Surface Based on Au oated Porous GaN. , 2010, , .		1
125	Size and Shape of Micelles Studied by Means of SANS, PCS, and FCS. Langmuir, 2010, 26, 9304-9314.	<b>3.</b> 5	45
126	Incorporation of Carbon Nanotubes into a Lyotropic Liquid Crystal by Phase Separation in the Presence of a Hydrophilic Polymer. Langmuir, 2010, 26, 3562-3568.	3.5	30

#	Article	IF	Citations
127	Evaluation of Ligand-Selector Interaction from Effective Diffusion Coefficient. Analytical Chemistry, 2010, 82, 5463-5469.	6.5	31
128	Single-Walled Carbon Nanotube/Lyotropic Liquid Crystal Hybrid Materials Fabricated by a Phase Separation Method in the Presence of Polyelectrolyte. Langmuir, 2010, 26, 8821-8828.	3.5	24
129	Binary and graded evolution in time in a simple model of gene induction. Physical Review E, 2010, 82, 052902.	2.1	5
130	Large-scale molecular dynamics verification of the Rayleigh-Plesset approximation for collapse of nanobubbles. Physical Review E, 2010, 82, 066309.	2.1	19
131	Phase Transition in Salt-Free Catanionic Surfactant Mixtures Induced by Temperature. Langmuir, 2010, 26, 34-40.	3.5	36
132	Reversible aggregation of X-Shaped bolaamphiphiles with partially fluorinated lateral chains at the air/water interface. Chemical Communications, 2010, 46, 1896-1898.	4.1	13
133	Publisher's Note: From complex structures to complex processes: Percolation theory applied to the formation of a city [Phys. Rev. E80, 037102 (2009)]. Physical Review E, 2009, 80, .	2.1	0
134	From complex structures to complex processes: Percolation theory applied to the formation of a city. Physical Review E, 2009, 80, 037102.	2.1	16
135	Challenges in thermodynamics: Irreversible processes, nonextensive entropies, and systems without equilibrium states. Pure and Applied Chemistry, 2009, 81, 1719-1726.	1.9	3
136	Dynamic charge separation in a liquid crystalline meniscus. Soft Matter, 2009, 5, 2352-2360.	2.7	3
137	Scaling form of viscosity at all length-scales in poly(ethylene glycol) solutions studied by fluorescence correlation spectroscopy and capillary electrophoresis. Physical Chemistry Chemical Physics, 2009, 11, 9025.	2.8	160
138	Evaporation into vacuum: Mass flux from momentum flux and the Hertz–Knudsen relation revisited. Journal of Chemical Physics, 2009, 130, 074707.	3.0	45
139	Dynamics of Phase Separation in Polymer Blends Revisited: Morphology, Spinodal, Noise, and Nucleation. Macromolecular Theory and Simulations, 2008, 17, 263-273.	1.4	26
140	Micro- and macro-shear viscosity in dispersed lamellar phases. Journal of Non-Newtonian Fluid Mechanics, 2008, 148, 134-140.	2.4	12
141	Efficient Adsorption of Super Greenhouse Gas (Tetrafluoromethane) in Carbon Nanotubes. Environmental Science & Technology, 2008, 42, 2931-2936.	10.0	45
142	Heat Transfer at the Nanoscale: Evaporation of Nanodroplets. Physical Review Letters, 2008, 100, 055701.	7.8	71
143	Accurate Genetic Switch in Escherichia coli: Novel Mechanism of Regulation by Co-repressor. Journal of Molecular Biology, 2008, 377, 1002-1014.	4.2	11
144	Collective Rotations of Ferroelectric Liquid Crystals at the Air/Water Interface. Langmuir, 2008, 24, 12354-12363.	3.5	11

#	Article	IF	Citations
145	Late Stage of the Phase-Separation Process: Coalescence-Induced Coalescence, Gravitational Sedimentation, and Collective Evaporation Mechanisms. Langmuir, 2008, 24, 6433-6440.	3.5	7
146	Three-dimensional space partition based on the first Laplacian eigenvalues in cells. Physical Review E, 2008, 77, 056101.	2.1	10
147	Hydrogen storage in nanoporous carbon materials: myth and facts. Physical Chemistry Chemical Physics, 2007, 9, 1786-1792.	2.8	151
148	Kinetics and Dynamics of Dissolution/Mixing of a High-Viscosity Liquid Phase in a Low-Viscosity Solvent Phase. Journal of Physical Chemistry B, 2007, 111, 11907-11914.	2.6	3
149	Influence of Poly(ethylene glycol) Molecular Mass on Separation and Ordering in Solutions of CiEjNonionic Surfactants:Â Depletion Interactions and Steric Effects. Journal of Physical Chemistry B, 2007, 111, 7948-7953.	2.6	8
150	Net Charge and Electrophoretic Mobility of Lysozyme Charge Ladders in Solutions of Nonionic Surfactant. Journal of Physical Chemistry B, 2007, 111, 5503-5510.	2.6	15
151	Kinetic Trapping of Large Amount of Long Polymers in Nanopores. Journal of the American Chemical Society, 2007, 129, 13398-13399.	13.7	6
152	Brownian motion with inert drift, but without flux: A model. Physica A: Statistical Mechanics and Its Applications, 2007, 384, 278-284.	2.6	4
153	Movement of Proteins in an Environment Crowded by Surfactant Micelles:Â Anomalous versus Normal Diffusion. Journal of Physical Chemistry B, 2006, 110, 7367-7373.	2.6	32
154	Diffusion and Viscosity in a Crowded Environment:Â from Nano- to Macroscale. Journal of Physical Chemistry B, 2006, 110, 25593-25597.	2.6	97
155	State of Hydrogen in Idealized Carbon Slitlike Nanopores at 77 K. Langmuir, 2006, 22, 1970-1972.	3.5	42
156	Phase Separation in Binary Polymer/Liquid Crystal Mixtures:Â Network Breaking and Domain Growth by Coalescence-induced Coalescence. Journal of Physical Chemistry B, 2006, 110, 9869-9875.	2.6	6
157	Global symmetry breaking in the nonconserved order parameter system during phase ordering. European Physical Journal E, 2005, 16, 247-251.	1.6	2
158	Infinite networks of surfaces. Nature Materials, 2005, 4, 510-511.	27.5	18
159	Condensation of a vapor bubble in submicrometer container. Journal of Chemical Physics, 2005, 123, 104705.	3.0	4
160	Evaporation of a thin liquid film. Journal of Chemical Physics, 2005, 122, 024713.	3.0	12
161	Minimization of the Renyi entropy production in the space-partitioning process. Physical Review E, 2005, 71, 046130.	2.1	14
162	Tiling a Plane in a Dynamical Process and its Applications to Arrays of Quantum Dots, Drums, and Heat Transfer. Physical Review Letters, 2005, 95, 088304.	7.8	4

#	Article	IF	Citations
163	Storage of Hydrogen at 303 K in Graphite Slitlike Pores from Grand Canonical Monte Carlo Simulation. Journal of Physical Chemistry B, 2005, 109, 17174-17183.	2.6	101
164	Evaporation of a Sub-Micrometer Droplet. Journal of Physical Chemistry B, 2005, 109, 11367-11372.	2.6	26
165	Coalescence-Induced Coalescence and Dimensional Crossover during the Phase Separation in Ternary Surfactant/Polymer/Water Mixtures. Journal of Physical Chemistry B, 2005, 109, 4419-4424.	2.6	4
166	Relaxation Processes in Semidilute Solutions of Polymers in Liquid Crystal Solvents. Journal of Physical Chemistry B, 2005, 109, 16252-16262.	2.6	2
167	Ordering in Surfactant Mixtures Induced by Polymers. Journal of Physical Chemistry B, 2005, 109, 4881-4886.	2.6	11
168	Modeling of the Hysteresis Phenomena in Finite-Sized Slitlike Nanopores. Revision of the Recent Results by Rigorous Numerical Analysis. Langmuir, 2005, 21, 6613-6627.	3.5	11
169	Distribution of Carbon Nanotube Sizes from Adsorption Measurements and Computer Simulation. Journal of Physical Chemistry B, 2005, 109, 14659-14666.	2.6	30
170	Chirality-Biased Point Defects Dynamics on a Disclination Line in a Nematic Liquid Crystal. Journal of Physical Chemistry B, 2005, 109, 9712-9718.	2.6	3
171	Hidden Minima of the Gibbs Free Energy Revealed in a Phase Separation in Polymer/Surfactant/Water Mixture. Journal of Physical Chemistry B, 2005, 109, 8533-8537.	2.6	5
172	Some features of soft matter systems. Soft Matter, 2005, 1, 329.	2.7	33
173	Pattern formation in nonextensive thermodynamics: Selection criterion based on the Renyi entropy production. Journal of Chemical Physics, 2005, 122, 174105.	3.0	8
174	Relaxation processes in mixtures of liquid crystals and polymers near phase boundaries and during phase separation. Journal of Chemical Physics, 2004, 120, 8277-8282.	3.0	2
175	Percolation-to-droplets transition during spinodal decomposition in polymer blends, morphology analysis. Journal of Chemical Physics, 2004, 121, 1141-1147.	3.0	14
176	The unphysical pinning of the domain growth during the separation of homopolymer blends near the spinodal. Journal of Chemical Physics, 2004, 120, 5802-5808.	3.0	3
177	Minimization of the Renyi entropy production in the stationary states of the Brownian process with matched death and birth rates. Physical Review E, 2004, 69, 016110.	2.1	10
178	Liquids with internal surfaces at and out of equilibrium: the homogeneity index. Journal of Molecular Liquids, 2004, 112, 29-35.	4.9	0
179	A Morphological Study of the Formation of PdHxon Thin Palladium Films. Journal of Physical Chemistry B, 2004, 108, 7373-7376.	2.6	4
180	Growth of Polystyrene Domains in Isotropic, Nematic and Smectic Phase of 8CB Liquid Crystal. Macromolecules, 2003, 36, 6903-6913.	4.8	16

#	Article	IF	CITATIONS
181	Scattering Patterns of Multiply Continuous Cubic Phases in Block Copolymers. I. The Model. Macromolecules, 2003, 36, 9181-9190.	4.8	14
182	Scattering Patterns of Multiply Continuous Cubic Phases in Block Copolymers. II. Application to Various Triply Periodic Architectures. Macromolecules, 2003, 36, 9191-9198.	4.8	8
183	Comment on "Tracer Diffusion in a Dislocated Lamellar System― Physical Review Letters, 2003, 91, 039801; author reply 039802.	7.8	4
184	Multiple photonic band gaps in the structures composed of core-shell particles. Journal of Applied Physics, 2003, 94, 4244-4247.	2.5	15
185	Polymer Domain Growth in Ordered Liquid Crystalline Matrices. Physical Review Letters, 2003, 90, 115504.	7.8	2
186	Photonic properties of an inverted face centered cubic opal under stretch and shear. Applied Physics Letters, 2003, 82, 1553-1555.	3.3	12
187	Annihilation of point defects on a line. Physical Review E, 2002, 65, 041711.	2.1	9
188	Morphological changes during the order-disorder transition in the two- and three-dimensional systems of scalar nonconserved order parameters. Physical Review E, 2002, 66, 046121.	2.1	18
189	Photonic properties of multicontinuous cubic phases. Physical Review B, 2002, 66, .	3.2	24
190	Morphology from the maximum entropy principle: Domains in a phase ordering system and a crack pattern in broken glass. Physical Review E, 2002, 65, 057105.	2.1	4
191	Quench–jump sequence in phase separation in polymer blends. Journal of Chemical Physics, 2002, 117, 1886-1892.	3.0	17
192	Morphology of Surfaces in Mesoscopic Polymers, Surfactants, Electrons, or Reaction-Diffusion Systems: Methods, Simulations, and Measurements. Advances in Chemical Physics, 2002, , 141-239.	0.3	28
193	Memory Effects in Homopolymer Blends during Annealing. Macromolecules, 2002, 35, 7718-7724.	4.8	7
194	Contact Angle between Smectic Film and Its Meniscus. Langmuir, 2002, 18, 1511-1517.	<b>3.</b> 5	15
195	Demixing/Mixing of Polystyrene with Poly(methylphenylsiloxane) in a Two-Step Cooling/Heating Process: A Jump Spinodal Specification Method. Macromolecules, 2002, 35, 9117-9129.	4.8	11
196	Scattering Patterns of Self-Assembled Cubic Phases. 2. Analysis of the Experimental Spectra. Langmuir, 2002, 18, 2529-2537.	<b>3.</b> 5	49
197	Scattering Patterns of Self-Assembled Cubic Phases. 1. The Model. Langmuir, 2002, 18, 2519-2528.	3 <b>.</b> 5	45
198	When Boundaries Dominate: Dislocation Dynamics in Smectic Films. Physical Review Letters, 2001, 88, 015503.	7.8	26

#	Article	IF	CITATIONS
199	Approach to equilibrium of particles diffusing on curved surfaces. Physica A: Statistical Mechanics and Its Applications, 2001, 295, 371-378.	2.6	5
200	Liquid-Crystalline Order in Polymer Systems: Basic Models. Macromolecular Theory and Simulations, 2001, 10, 1-16.	1.4	43
201	Scattering patterns of self-assembled gyroid cubic phases in amphiphilic systems. Journal of Chemical Physics, 2001, 115, 1095-1099.	3.0	11
202	Mechanisms for facilitated target location and the optimal number of molecules in the diffusion search process. Physical Review E, 2001, 64, 011914.	2.1	3
203	Scaling of the Euler Characteristic, Surface Area, and Curvatures in the Phase Separating or Ordering Systems. Physical Review Letters, 2001, 86, 240-243.	7.8	35
204	Periodic surfaces of simple and complex topology: Comparison of scattering patterns. Physical Review E, 2001, 64, 021501.	2.1	15
205	Kinetics of the droplet formation at the early and intermediate stages of the spinodal decomposition in homopolymer blends. Macromolecular Theory and Simulations, 2000, 9, 661-674.	1.4	9
206	A Fleming–Viot Particle Representation¶of the Dirichlet Laplacian. Communications in Mathematical Physics, 2000, 214, 679-703.	2,2	80
207	Phase behavior of gradient copolymers. AIP Conference Proceedings, 2000, , .	0.4	0
208	Scattering on triply periodic minimal surfacesâ€"the effect of the topology, Debyeâ€"Waller, and molecular form factors. Journal of Chemical Physics, 2000, 113, 3772-3779.	3.0	20
209	Reorientational angle distribution and diffusion coefficient for nodal and cylindrical surfaces. Journal of Chemical Physics, 2000, 113, 9920-9929.	3.0	11
210	Topological Lifshitz Line, Off-Specular Scattering, and Mesoporous Materials. Physical Review Letters, 2000, 85, 130-133.	7.8	5
211	Scaling properties of the morphological measures at the early and intermediate stages of the spinodal decomposition in homopolymer blends. Journal of Chemical Physics, 2000, 112, 6049-6062.	3.0	41
212	Influence of the free-energy functional form on simulated morphology of spinodally decomposing blends. Physical Review E, 2000, 62, 6821-6830.	2.1	0
213	Coupling between meniscus and smectic-Afilms:â€,Circular and catenoid profiles, induced stress, and dislocation dynamics. Physical Review E, 2000, 62, 3747-3757.	2.1	44
214	Phase behavior of gradient copolymers. Journal of Chemical Physics, 1999, 111, 2329-2339.	3.0	68
215	Diffusion on curved, periodic surfaces. Physical Review E, 1999, 60, 302-307.	2.1	47
216	Dynamic critical behavior of the Landau-Peierls fluctuations: Scaling form of the dynamic density autocorrelation function for smectic-Afilms. Physical Review E, 1999, 59, 3048-3058.	2.1	24

#	Article	lF	Citations
217	Single-chain statistics in polymer systems. Progress in Polymer Science, 1999, 24, 1045-1093.	24.7	15
218	Single chain conformations in the system of symmetric and asymmetric diblock copolymers. Macromolecular Theory and Simulations, 1999, 8, 328-342.	1.4	3
219	Thinning transitions in free-standing liquid-crystal films as the successive formation of dislocation loops. Physical Review E, 1999, 60, R2456-R2459.	2.1	37
220	Coherent Soft-X-Ray Dynamic Light Scattering from Smectic-AFilms. Physical Review Letters, 1999, 82, 755-758.	7.8	75
221	Swelling and shrinking of polymer chains in homopolymer blends. Macromolecular Theory and Simulations, 1998, 7, 447-456.	1.4	4
222	Confined complex liquids: Passages, droplets, permanent deformations, and order–disorder transitions. Journal of Chemical Physics, 1998, 109, 11051-11060.	3.0	10
223	Dynamic correlation functions for finite and infinite smectic-Asystems: Theory and experiment. Physical Review E, 1998, 58, 2027-2040.	2.1	35
224	Coupling of Polarization and Dislocation in Ferroelectric Smectic Liquid-Crystal Films. Physical Review Letters, 1998, 81, 5848-5851.	7.8	15
225	Meniscus and Dislocations in Free-Standing Films of Smectic-ALiquid Crystals. Physical Review Letters, 1997, 78, 1924-1927.	7.8	73
226	Confinement Induced Topological Fluctuations in a System with Internal Surfaces. Physical Review Letters, 1997, 79, 1499-1502.	7.8	13
227	From the plateau problem to periodic minimal surfaces in lipids, surfactants and diblock copolymers. Macromolecular Theory and Simulations, 1996, 5, 321-332.	1.4	32
228	The structure and phase transitions in polymer blends, diblock copolymers and liquid crystalline polymers: The Landau-Ginzburg approach. Macromolecular Theory and Simulations, 1996, 5, 573-643.	1.4	52
229	High Genus Periodic Gyroid Surfaces of Nonpositive Gaussian Curvature. Physical Review Letters, 1996, 76, 2726-2729.	7.8	47
230	Triply periodic surfaces and multiply continuous structures from the Landau model of microemulsions. Physical Review E, 1996, 54, 5012-5027.	2.1	109
231	Polydispersity and Ordered Phases in Solutions of Rodlike Macromolecules. Physical Review Letters, 1996, 76, 1396-1399.	7.8	42
232	Configurational transition in a Fleming - Viot-type model and probabilistic interpretation of Laplacian eigenfunctions. Journal of Physics A, 1996, 29, 2633-2642.	1.6	40
233	Front propagation into unstable and metastable states in smectic-C*liquid crystals: Linear and nonlinear marginal-stability analysis. Physical Review E, 1995, 52, 1773-1777.	2.1	31
234	Influence of the Electric Field on Edge Dislocations in Smectics. Journal De Physique II, 1995, 5, 1525-1532.	0.9	2

#	Article	IF	Citations
235	2D Brownian motion in a system of reflecting barriers: effective diffusivity by a sampling method. Journal of Physics A, 1994, 27, 631-644.	1.6	O
236	Dislocations as Flexible Objects: Interactions and Unbinding Transition. Europhysics Letters, 1994, 28, 647-652.	2.0	1
237	Dislocations in lamellar and liquid crystal films: Equilibrium location, edge profiles, and phase transitions. Physical Review Letters, 1994, 72, 4097-4100.	7.8	14
238	Determination of the mean-field stability temperature in polymer blends. Physical Review Letters, 1994, 72, 2304-2304.	7.8	3
239	Single-chain statistics and the upper wave-vector cutoff in polymer blends. Physical Review E, 1994, 50, 2087-2092.	2.1	12
240	Edge profiles at lamellar phase/melt interfaces. Macromolecular Theory and Simulations, 1994, 3, 817-824.	1.4	1
241	Copolymers as amphiphiles in ternary mixtures: An analysis employing disorder, equimaxima, and Lifshitz lines. Journal of Chemical Physics, 1992, 96, 7728-7737.	3.0	91
242	Landau-Peierls instability, x-ray-diffraction patterns, and surface freezing in thin smectic films. Physical Review A, 1991, 44, 3692-3709.	2.5	109
243	Interfacial properties of amphiphilic systems: The approach to Lifshitz points. Physical Review A, 1991, 43, 3157-3160.	2.5	37
244	Fluctuations in thin smectic-Afilms. Physical Review Letters, 1990, 65, 2153-2156.	7.8	82
245	Study of the Landau bicritical point in dense systems of hard biaxial molecules. Molecular Physics, 1990, 69, 193-197.	1.7	46
246	Smectic-A, crystalline and columnar ordering in the system of hard parallel cylinders. Molecular Physics, 1990, 71, 561-566.	1.7	14
247	Orientation of Liquid-Crystal Molecules at the Nematic-Isotropic Interface and the Nematic Free Surface. Molecular Crystals and Liquid Crystals Incorporating Nonlinear Optics, 1990, 192, 65-67.	0.3	1
248	X-ray determination of the molecular tilt and layer fluctuation profiles of freely suspended liquid-crystal films. Physical Review Letters, 1990, 65, 2157-2160.	7.8	97
249	Exact sum rules and geometrical packing effects in the system of hard rods near a hard wall in three dimensions. Molecular Physics, 1989, 68, 391-400.	1.7	21
250	Comparative study of the nematic phase-isotropic phase transition in systems of uniaxial hard cores. Molecular Physics, 1989, 68, 381-390.	1.7	28
251	Generalized Ornstein-Zernike approach to many-particle equilibrium correlation functions. Physica A: Statistical Mechanics and Its Applications, 1989, 157, 857-890.	2.6	9
252	Quasi-wetting on a sphere. Physica A: Statistical Mechanics and Its Applications, 1988, 149, 622-630.	2.6	14

## ROBERT HOLYST

#	Article	IF	CITATIONS
253	Density-Functional Theory for Nematic andSmecticâ^'AOrdering of Hard Spherocylinders. Physical Review Letters, 1988, 61, 2461-2464.	7.8	113
254	Director orientation at the nematic-phase–isotropic-phase interface for the model of hard spherocylinders. Physical Review A, 1988, 38, 1527-1533.	2.5	67
255	Nematic-wall surface tension for perfectly aligned hard linear molecules. Molecular Physics, 1988, 65, 1081-1087.	1.7	7
256	Wetting on a spherical surface. Physical Review B, 1987, 36, 5628-5630.	3.2	66