

Lynn M Walker

List of Publications by Year in descending order

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105
papers

4,081
citations

81900

39
h-index

123424

61
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106
all docs

106
docs citations

106
times ranked

3923
citing authors

#	ARTICLE	IF	CITATIONS
1	Prediction and measurement of leaky dielectric drop interactions. <i>Physical Review Fluids</i> , 2022, 7, .	2.5	5
2	Numerical and asymptotic analysis of the three-dimensional electrohydrodynamic interactions of drop pairs. <i>Journal of Fluid Mechanics</i> , 2021, 914, .	3.4	15
3	Welcoming Philippe Coussot as the next European editor. <i>Rheologica Acta</i> , 2021, 60, 291.	2.4	0
4	Shear-Modulated Rates of Phase Transitions in Sphere-Forming Diblock Oligomer Lyotropic Liquid Crystals. <i>ACS Macro Letters</i> , 2021, 10, 538-544.	4.8	2
5	Droplet-Based Microfluidic Tool to Quantify Viscosity of Concentrating Protein Solutions. <i>Pharmaceutical Research</i> , 2021, 38, 1765-1775.	3.5	7
6	Transport of Flexible, Oil-Soluble Diblock and BAB Triblock Copolymers to Oil/Water Interfaces. <i>Langmuir</i> , 2020, 36, 7227-7235.	3.5	2
7	Insensitivity of Sterically Defined Helical Chain Conformations to Solvent Quality in Dilute Solution. <i>ACS Macro Letters</i> , 2020, 9, 849-854.	4.8	8
8	Inflammation product effects on dilatational mechanics can trigger the Laplace instability and acute respiratory distress syndrome. <i>Soft Matter</i> , 2020, 16, 6890-6901.	2.7	17
9	Dynamic interfacial tension measurement under electric fields allows detection of charge carriers in nonpolar liquids. <i>Journal of Colloid and Interface Science</i> , 2020, 567, 18-27.	9.4	7
10	Deformation of a conducting drop in a randomly fluctuating electric field. <i>Physical Review Fluids</i> , 2020, 5, .	2.5	1
11	Electric fields enable tunable surfactant transport to microscale fluid interfaces. <i>Physical Review E</i> , 2019, 100, 023114.	2.1	4
12	Special issue devoted to novel trends in rheology. <i>Rheologica Acta</i> , 2019, 58, 419-420.	2.4	1
13	Rheological characterization of BCC and FCC structures in aqueous diblock copolymer liquid crystals. <i>Korea Australia Rheology Journal</i> , 2019, 31, 249-254.	1.7	3
14	Formation and elasticity of membranes of the class II hydrophobin Cerato-ulmin at oil-water interfaces. <i>Colloids and Surfaces B: Biointerfaces</i> , 2018, 164, 98-106.	5.0	11
15	Microfluidic Droplet-Based Tool To Determine Phase Behavior of a Fluid System with High Composition Resolution. <i>Journal of Physical Chemistry B</i> , 2018, 122, 4067-4076.	2.6	13
16	Effect of surfactant tail length and ionic strength on the interfacial properties of nanoparticle-surfactant complexes. <i>Soft Matter</i> , 2018, 14, 112-123.	2.7	44
17	Colloidal stability dictates drop breakup under electric fields. <i>Soft Matter</i> , 2018, 14, 9351-9360.	2.7	8
18	Interfacial Properties of Polyelectrolyte-Surfactant Aggregates at Air/Water Interfaces. <i>Langmuir</i> , 2018, 34, 12906-12913.	3.5	6

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19	Decoupling Bulk Mechanics and Mono- and Multivalent Ion Transport in Polymers Based on Metal-Ligand Coordination. <i>Chemistry of Materials</i> , 2018, 30, 5759-5769.	6.7	43
20	Effective viscosity of a dilute emulsion of spherical drops containing soluble surfactant. <i>Rheologica Acta</i> , 2018, 57, 481-491.	2.4	6
21	Droplet-based characterization of surfactant efficacy in colloidal stabilization of carbon black in nonpolar solvents. <i>Journal of Colloid and Interface Science</i> , 2017, 493, 265-274.	9.4	8
22	Impact of dispersed particles on the structure and shear alignment of block copolymer soft solids. <i>Journal of Rheology</i> , 2017, 61, 237-252.	2.6	7
23	The role of surface charge convection in the electrohydrodynamics and breakup of prolate drops. <i>Journal of Fluid Mechanics</i> , 2017, 833, 29-53.	3.4	37
24	Modeling and Theory: general discussion. <i>Faraday Discussions</i> , 2016, 186, 371-398.	3.2	1
25	Applications to Soft Matter: general discussion. <i>Faraday Discussions</i> , 2016, 186, 503-527.	3.2	1
26	Measurements of Submicron Particle Adsorption and Particle Film Elasticity at Oil-Water Interfaces. <i>Langmuir</i> , 2016, 32, 4125-4133.	3.5	51
27	Formation of a Rigid Hydrophobic Film and Disruption by an Anionic Surfactant at an Air/Water Interface. <i>Langmuir</i> , 2016, 32, 5542-5551.	3.5	20
28	Transport of nanoparticulate material in self-assembled block copolymer micelle solutions and crystals. <i>Faraday Discussions</i> , 2016, 186, 435-454.	3.2	4
29	Relaxation or breakup of a low-conductivity drop upon removal of a uniform dc electric field. <i>Physical Review Fluids</i> , 2016, 1, .	2.5	4
30	Nonlinear electrohydrodynamics of slightly deformed oblate drops. <i>Journal of Fluid Mechanics</i> , 2015, 774, 245-266.	3.4	75
31	Coalescence behavior of oil droplets coated in irreversibly-adsorbed surfactant layers. <i>Journal of Colloid and Interface Science</i> , 2015, 449, 480-487.	9.4	26
32	Sequential Adsorption of an Irreversibly Adsorbed Nonionic Surfactant and an Anionic Surfactant at an Oil/Aqueous Interface. <i>Langmuir</i> , 2015, 31, 4063-4071.	3.5	35
33	The importance of experimental design on measurement of dynamic interfacial tension and interfacial rheology in diffusion-limited surfactant systems. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2015, 467, 135-142.	4.7	46
34	Controlling thread formation during tipstreaming through an active feedback control loop. <i>Lab on A Chip</i> , 2013, 13, 4534.	6.0	22
35	Interfacial Tension Dynamics, Interfacial Mechanics, and Response to Rapid Dilution of Bulk Surfactant of a Model Oil-Water-Dispersant System. <i>Langmuir</i> , 2013, 29, 1857-1867.	3.5	43
36	The influence of inertia and charge relaxation on electrohydrodynamic drop deformation. <i>Physics of Fluids</i> , 2013, 25, .	4.0	53

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37	Predicting conditions for microscale surfactant mediated tipstreaming. <i>Physics of Fluids</i> , 2012, 24, .	4.0	28
38	A criterion to assess the impact of confined volumes on surfactant transport to liquidâ€“fluid interfaces. <i>Soft Matter</i> , 2012, 8, 8917.	2.7	26
39	Interfacial Dynamics and Rheology of Polymer-Grafted Nanoparticles at Airâ€“Water and Xyleneâ€“Water Interfaces. <i>Langmuir</i> , 2012, 28, 8052-8063.	3.5	101
40	Coupling electrokinetics and rheology: Electrophoresis in non-Newtonian fluids. <i>Physical Review E</i> , 2012, 85, 016320.	2.1	37
41	Using bulk convection in a microtensiometer to approach kinetic-limited surfactant dynamics at fluidâ€“fluid interfaces. <i>Journal of Colloid and Interface Science</i> , 2012, 372, 183-191.	9.4	59
42	Competition Between Viscoelasticity and Surfactant Dynamics in Flow Focusing Microfluidics. <i>Macromolecular Materials and Engineering</i> , 2011, 296, 203-213.	3.6	46
43	Spatially directed guidance of stem cell population migration by immobilized patterns of growth factors. <i>Biomaterials</i> , 2011, 32, 2775-2785.	11.4	85
44	The effect of alkane tail length of C E8 surfactants on transport to the silicone oilâ€“water interface. <i>Journal of Colloid and Interface Science</i> , 2011, 355, 231-236.	9.4	27
45	Structural and Mechanical Hysteresis at the Order-Order Transition of Block Copolymer Micellar Crystals. <i>Polymers</i> , 2011, 3, 281-298.	4.5	17
46	Stabilizing Biomacromolecules in Nontoxic Nano-Structured Materials. <i>Journal of the Association for Laboratory Automation</i> , 2010, 15, 136-144.	2.8	8
47	Diffusion-limited adsorption to a spherical geometry: The impact of curvature and competitive time scales. <i>Physical Review E</i> , 2010, 82, 011604.	2.1	83
48	A pH-Induced Transition of Surfactantâ”Polyelectrolyte Aggregates from Cylindrical to String-of-Pearls Structure. <i>Langmuir</i> , 2010, 26, 10489-10496.	3.5	30
49	A Microtensiometer To Probe the Effect of Radius of Curvature on Surfactant Transport to a Spherical Interface. <i>Langmuir</i> , 2010, 26, 13310-13319.	3.5	103
50	Influence of crossâ€“linker chemistry on release kinetics of PEGâ€“co- <i>i>g></i> â€“PGA hydrogels. <i>Journal of Biomedical Materials Research - Part A</i> , 2009, 90A, 142-153.	4.0	37
51	Scattering from polymer-like micelles. <i>Current Opinion in Colloid and Interface Science</i> , 2009, 14, 451-454.	7.4	22
52	A non-gradient based algorithm for the determination of surface tension from a pendant drop: Application to low Bond number drop shapes. <i>Journal of Colloid and Interface Science</i> , 2009, 333, 557-562.	9.4	64
53	Impact of fluid memory on wetting approaching the air entrainment limit. <i>Journal of Colloid and Interface Science</i> , 2009, 337, 619-621.	9.4	3
54	End-group effects on the properties of PEG-co-PGA hydrogels. <i>Acta Biomaterialia</i> , 2009, 5, 1872-1883.	8.3	49

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55	Complex Adsorption Behavior of Rodlike Polyelectrolyte-Surfactant Aggregates. <i>Langmuir</i> , 2009, 25, 4484-4489.	3.5	12
56	Adsorption Studies of a Polymerizable Surfactant by Optical Reflectivity and Quartz Crystal Microbalance. <i>Langmuir</i> , 2009, 25, 11503-11508.	3.5	6
57	Dynamic wetting with viscous Newtonian and non-Newtonian fluids. <i>Journal of Physics Condensed Matter</i> , 2009, 21, 464126.	1.8	23
58	Role of geometry and fluid properties in droplet and thread formation processes in planar flow focusing. <i>Physics of Fluids</i> , 2009, 21, .	4.0	193
59	Characterization of Surfactant Partitioning in Polyelectrolyte-Surfactant Nanorod Aggregates Observed with a Surfactant-Specific Electrode. <i>Industrial & Engineering Chemistry Research</i> , 2009, 48, 2430-2435.	3.7	5
60	Inkjet Printing of Growth Factor Concentration Gradients and Combinatorial Arrays Immobilized on Biologically-Relevant Substrates. <i>Combinatorial Chemistry and High Throughput Screening</i> , 2009, 12, 604-618.	1.1	72
61	Macroscopic alignment of nanoparticle arrays in soft crystals of cubic and cylindrical polymer micelles. <i>European Physical Journal E</i> , 2008, 26, 183-189.	1.6	25
62	Nematic phases observed in amphiphilic polyelectrolyte-surfactant aggregate solutions. <i>Soft Matter</i> , 2008, 4, 286-293.	2.7	18
63	Impact of Viscosity Ratio on the Dynamics of Droplet Breakup in a Microfluidic Flow Focusing Device. <i>AIP Conference Proceedings</i> , 2008, , .	0.4	2
64	Multisegmented Block Copolymers by 'Click' Coupling of Polymers Prepared by ATRP. <i>Australian Journal of Chemistry</i> , 2007, 60, 400.	0.9	71
65	Dynamic wetting of shear thinning fluids. <i>Physics of Fluids</i> , 2007, 19, 012103.	4.0	41
66	Solution Behavior of Rod-Like Polyelectrolyte-Surfactant Aggregates Polymerized from Wormlike Micelles. <i>Journal of Physical Chemistry B</i> , 2007, 111, 6417-6424.	2.6	28
67	Polymerized Rodlike Micelle Adsorption at the Solid-Liquid Interface. <i>Langmuir</i> , 2007, 23, 8094-8102.	3.5	14
68	Shear Orientation of Nanoparticle Arrays Templated in a Thermoreversible Block Copolymer Micellar Crystal. <i>Macromolecules</i> , 2007, 40, 5801-5811.	4.8	37
69	Wormlike micelles as a template for polymerization. <i>Current Opinion in Colloid and Interface Science</i> , 2007, 12, 101-105.	7.4	27
70	Small-angle neutron scattering of silica nanoparticles templated in PEO-PPO-PEO cubic crystals. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2007, 294, 117-129.	4.7	49
71	Dynamic wetting of Boger fluids. <i>Journal of Colloid and Interface Science</i> , 2007, 313, 274-280.	9.4	23
72	Controlling Dimensions of Polymerized Micelles: Micelle Template versus Reaction Conditions. <i>Langmuir</i> , 2006, 22, 941-948.	3.5	31

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73	Dose-dependent cell growth in response to concentration modulated patterns of FGF-2 printed on fibrin. <i>Biomaterials</i> , 2006, 27, 2213-2221.	11.4	102
74	QUANTIFYING AIR ATOMIZATION OF VISCOELASTIC FLUIDS THROUGH FLUID RELAXATION TIMES. , 2006, 16, 777-790.		14
75	Three-Dimensional Nanoparticle Arrays Templated by Self-Assembled Block-Copolymer Gels. <i>Macromolecular Symposia</i> , 2005, 227, 203-210.	0.7	17
76	Bayesian computer-aided experimental design of heterogeneous scaffolds for tissue engineering. <i>CAD Computer Aided Design</i> , 2005, 37, 1127-1139.	2.7	56
77	Engineered spatial patterns of FGF-2 immobilized on fibrin direct cell organization. <i>Biomaterials</i> , 2005, 26, 6762-6770.	11.4	141
78	Wetting by simple room-temperature polymer melts: deviations from Newtonian behavior. <i>Journal of Colloid and Interface Science</i> , 2005, 284, 265-270.	9.4	11
79	Rheology and phase behavior of copolymer-templated nanocomposite materials. <i>Journal of Rheology</i> , 2005, 49, 759-782.	2.6	39
80	Rheology of transient networks containing hydrophobically modified cellulose, anionic surfactant and colloidal silica: role of selective adsorption. <i>Rheologica Acta</i> , 2004, 43, 50-61.	2.4	9
81	Reversible shear gelation of polymer-clay dispersions. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2004, 240, 187-198.	4.7	71
82	The Adsorption of Polymerized Rodlike Micelles at the Solid-Liquid Interface. <i>Langmuir</i> , 2004, 20, 1085-1094.	3.5	15
83	Characterization of Rodlike Aggregates Generated from a Cationic Surfactant and a Polymerizable Counterion. <i>Langmuir</i> , 2004, 20, 8510-8516.	3.5	48
84	Shake-gels: shear-induced gelation of laponite-PEO mixtures. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2003, 213, 189-197.	4.7	123
85	The Formation of an Irreversibly Adsorbed and Organized Micelle Layer at the Solid-Liquid Interface. <i>Nano Letters</i> , 2002, 2, 1409-1412.	9.1	17
86	Quantifying the Importance of Micellar Microstructure and Electrostatic Interactions on the Shear-Induced Structural Transition of Cylindrical Micelles. <i>Langmuir</i> , 2002, 18, 2024-2031.	3.5	39
87	Effect of fluid relaxation time of dilute polymer solutions on jet breakup due to a forced disturbance. <i>Journal of Rheology</i> , 2002, 46, 733-748.	2.6	108
88	Small angle light scattering analysis of morphology development of a model immiscible polymer blend in transient slit-contraction flows. <i>Journal of Rheology</i> , 2001, 45, 383-402.	2.6	8
89	Surface tension driven jet break up of strain-hardening polymer solutions. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2001, 100, 9-26.	2.4	166
90	Rheology and structure of worm-like micelles. <i>Current Opinion in Colloid and Interface Science</i> , 2001, 6, 451-456.	7.4	202

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91	Coalescence analysis through small-angle light scattering. <i>AICHE Journal</i> , 2001, 47, 2644-2652.	3.6	7
92	Orthogonal and parallel superposition measurements on lyotropic liquid crystalline polymers. <i>Rheologica Acta</i> , 2000, 39, 26-37.	2.4	23
93	Controlling the Shear-Induced Structural Transition of Rodlike Micelles Using Nonionic Polymer. <i>Langmuir</i> , 2000, 16, 7991-7998.	3.5	43
94	Shear-Thickening Dilute Surfactant Solutions: Equilibrium Structure As Studied by Small-Angle Neutron Scattering. <i>Langmuir</i> , 1999, 15, 6755-6763.	3.5	96
95	Small-angle light scattering study of droplet break-up in emulsions and polymer blends. <i>Chemical Engineering Science</i> , 1998, 53, 2231-2239.	3.8	36
96	Orthogonal versus parallel superposition measurements. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 1998, 79, 173-189.	2.4	87
97	Flow-structure relationship of shear-thickening surfactant solutions. <i>Europhysics Letters</i> , 1998, 41, 677-682.	2.0	75
98	In Situ Analysis of the Defect Texture in Liquid Crystal Polymer Solutions under Shear. <i>Macromolecules</i> , 1997, 30, 508-514.	4.8	46
99	Macroscopic Response of Wormlike Micelles to Elongational Flow. <i>Langmuir</i> , 1996, 12, 6309-6314.	3.5	62
100	SANS Analysis of the Molecular Order in Poly(γ -benzyl-L-glutamate)/Deuterated Dimethylformamide (PBLG/d-DMF) under Shear and during Relaxation. <i>Macromolecules</i> , 1996, 29, 2298-2301.	4.8	63
101	Concentration effects on the rheology and texture of PBLG/d-DMF solutions. <i>Journal of Rheology</i> , 1996, 40, 967-981.	2.6	22
102	Structure of Isotropic Solutions of Rigid Macromolecules via Small-Angle Neutron Scattering: Poly(γ -benzyl-L-glutamate)/Deuterated Dimethylformamide. <i>Macromolecules</i> , 1995, 28, 5075-5081.	4.8	15
103	The rheology of highly concentrated PBLG solutions. <i>Journal of Rheology</i> , 1995, 39, 925-952.	2.6	73
104	Rheology of region I flow in a lyotropic liquid-crystal polymer: The effects of defect texture. <i>Journal of Rheology</i> , 1994, 38, 1525-1547.	2.6	92
105	Determination of the Texture Viscosity and Elasticity of a Nematic PBLG/d-DMF Solution through Magnetic Field Alignment. <i>Macromolecules</i> , 1994, 27, 5979-5986.	4.8	17