Kathleen J Stebe

List of Publications by Year
in descending order

136 papers	7,005 citations	50244 46 h-index	66879 78 g-index
141 all docs	141 docs citations	141 times ranked	7581 citing authors

#	Article	IF	Citations
1	Curvature-driven capillary migration and assembly of rod-like particles. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 20923-20928.	3.3	240
2	Capillary interactions between anisotropic particles. Soft Matter, 2012, 8, 9957.	1.2	240
3	Quenching of Growth of ZnO Nanoparticles by Adsorption of Octanethiol. Journal of Physical Chemistry B, 2002, 106, 6985-6990.	1.2	213
4	Relationship between Absorbance Spectra and Particle Size Distributions for Quantum-Sized Nanocrystals. Journal of Physical Chemistry B, 2003, 107, 10412-10415.	1.2	212
5	Which surfactants reduce surface tension faster? A scaling argument for diffusion-controlled adsorption. Advances in Colloid and Interface Science, 2000, 85, 61-97.	7.0	187
6	Patterning of Small Particles by a Surfactant-Enhanced Marangoni-BÃ©nard Instability. Physical Review Letters, 2002, 88, 164501.	2.9	185
7	Oriented Assembly of Metamaterials. Science, 2009, 325, 159-160.	6.0	185
8	Nanoparticles at fluid interfaces: Exploiting capping ligands to control adsorption, stability and dynamics. Journal of Colloid and Interface Science, 2012, 387, 1-11.	5.0	171
9	Assembly of Colloidal Particles by Evaporation on Surfaces with Patterned Hydrophobicity. Langmuir, 2004, 20, 3062-3067.	1.6	163
10	Catalytic antimicrobial robots for biofilm eradication. Science Robotics, 2019, 4, .	9.9	154
11	Candida albicans stimulates Streptococcus mutans microcolony development via cross-kingdom biofilm-derived metabolites. Scientific Reports, 2017, 7, 41332.	1.6	148
12	Influence of Surfactants on an Evaporating Drop:Â Fluorescence Images and Particle Deposition Patterns. Langmuir, 2003, 19, 8271-8279.	1.6	147
13	Orientation and Self-Assembly of Cylindrical Particles by Anisotropic Capillary Interactions. Langmuir, 2010, 26, 15142-15154.	1.6	145
14	Remobilizing surfactant retarded fluid particle interfaces. I. Stressâ€free conditions at the interfaces of micellar solutions of surfactants with fast sorption kinetics. Physics of Fluids A, Fluid Dynamics, 1991, 3, 3-20.	1.6	123
15	Insoluble surfactants on a drop in an extensional flow: a generalization of the stagnated surface limit to deforming interfaces. Journal of Fluid Mechanics, 1999, 385, 79-99.	1.4	123
16	Continuous Fabrication of Hierarchical and Asymmetric Bijel Microparticles, Fibers, and Membranes by Solvent Transferâ€Induced Phase Separation (STRIPS). Advanced Materials, 2015, 27, 7065-7071.	11.1	122
17	Chemotaxis of Cell Populations through Confined Spaces at Single-Cell Resolution. PLoS ONE, 2012, 7, e29211.	1.1	117
18	Spontaneous Pattern Formation by Dip Coating of Colloidal Suspensions on Homogeneous Surfaces. Langmuir, 2007, 23, 2180-2183.	1.6	110

#	Article	IF	Citations
19	Clickable Janus Particles. Journal of the American Chemical Society, 2016, 138, 11437-11440.	6.6	106
20	Multifunctional nanocomposite hollow fiber membranes by solvent transfer induced phase separation. Nature Communications, 2017, 8, 1234.	5.8	94
21	Remobilizing Surfactant Retarded Fluid Particle Interfaces. Journal of Colloid and Interface Science, 1994, 163, 177-189.	5.0	93
22	Forced Desorption of Nanoparticles from an Oilâ€“Water Interface. Langmuir, 2012, 28, 1663-1667.	1.6	87
23	Surface Phase Behavior and Surface Tension Evolution for Lysozyme Adsorption onto Clean Interfaces and into DPPC Monolayers:â€‰ Theory and Experiment. Langmuir, 1998, 14, 1208-1218.	1.6	86
24	An Adsorptionâ€“Desorption-Controlled Surfactant on a Deforming Droplet. Journal of Colloid and Interface Science, 1998, 208, 68-80.	5.0	84
25	Capillary Assembly of Colloids: Interactions on Planar and Curved Interfaces. Annual Review of Condensed Matter Physics, 2018, 9, 283-305.	5.2	84
26	Janus and patchy colloids at fluid interfaces. Current Opinion in Colloid and Interface Science, 2017, 30, 25-33.	3.4	77
27	Gaussian Curvature Directs Stress Fiber Orientation and Cell Migration. Biophysical Journal, 2018, 114, 1467-1476.	0.2	75
28	Experimental Confirmation of the Oscillating Bubble Technique with Comparison to the Pendant Bubble Method: The Adsorption Dynamics of 1-Decanol. Journal of Colloid and Interface Science, 1996, 182, 526-538.	5.0	74
29	Curvature and Rho activation differentially control the alignment of cells and stress fibers. Science Advances, 2017, 3, e1700150.	4.7	73
30	Oscillating Bubble Tensiometry: A Method for Measuring the Surfactant Adsorptive-Desorptive Kinetics and the Surface Dilatational Viscosity. Journal of Colloid and Interface Science, 1994, 168, 21-31.	5.0	71
31	Polymer nanocomposite films with extremely high nanoparticle loadings via capillary rise infiltration (CaRI). Nanoscale, 2015, 7, 798-805.	2.8	70
32	Topographically induced hierarchical assembly and geometrical transformation of focal conic domain arrays in smectic liquid crystals. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 34-39.	3.3	68
33	One-Step Generation of Cell-Encapsulating Compartments via Polyelectrolyte Complexation in an Aqueous Two Phase System. ACS Applied Materials & Interfaces, 2016, 8, 25603-25611.	4.0	68
34	Combined Passive and Active Microrheology Study of Protein-Layer Formation at an Airâˆ'Water Interface. Langmuir, 2010, 26, 2650-2658.	1.6	67
35	Evidence that the Induction Time in the Surface Pressure Evolution of Lysozyme Solutions Is Caused by a Surface Phase Transition. Langmuir, 2000, 16, 5072-5078.	1.6	64
36	Marangoni Retardation of the Terminal Velocity of a Settling Droplet: The Role of Surfactant Physico-Chemistry. Journal of Colloid and Interface Science, 1996, 178, 144-155.	5.0	62

#	Article	IF	Citations
37	Interactions and Stress Relaxation in Monolayers of Soft Nanoparticles at Fluid-Fluid Interfaces. Physical Review Letters, 2015, 114, 108301.	2.9	58
38	Robust Bijels for Reactive Separation <i>via</i> Silica-Reinforced Nanoparticle Layers. ACS Nano, 2019, 13, 26-31.	7.3	57
39	The Reduction in Electroporation Voltages by the Addition of a Surfactant to Planar Lipid Bilayers. Biophysical Journal, 1998, 75, 880-888.	0.2	56
40	Curvatureâ€Driven, Oneâ€Step Assembly of Reconfigurable Smectic Liquid Crystal â€œCompound Eyeâ€• Lenses. Advanced Optical Materials, 2015, 3, 1287-1292.	3.6	56
41	Exploiting imperfections in the bulk to direct assembly of surface colloids. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 18804-18808.	3.3	55
42	Orientation of a Nanocylinder at a Fluid Interface. Journal of Physical Chemistry B, 2006, 110, 4283-4290.	1.2	52
43	Films of bacteria at interfaces. Advances in Colloid and Interface Science, 2017, 247, 561-572.	7.0	52
44	Pillarâ€Assisted Epitaxial Assembly of Toric Focal Conic Domains of Smecticâ€A Liquid Crystals. Advanced Materials, 2011, 23, 5519-5523.	11.1	51
45	Surfactant-induced retardation of the thermocapillary migration of a droplet. Journal of Fluid Mechanics, 1997, 340, 35-59.	1.4	50
46	Redox-Dependent Surface Tension and Surface Phase Transitions of a Ferrocenyl Surfactant:Â Equilibrium and Dynamic Analyses with Fluorescence Images. Langmuir, 2003, 19, 8292-8301.	1.6	50
47	Fine Golden Rings: Tunable Surface Plasmon Resonance from Assembled Nanorods in Topological Defects of Liquid Crystals. Advanced Materials, 2016, 28, 2731-2736.	11.1	50
48	Films of bacteria at interfaces: three stages of behaviour. Soft Matter, 2015, 11, 6062-6074.	1.2	49
49	Curvature capillary migration of microspheres. Soft Matter, 2015, 11, 6768-6779.	1.2	47
50	AWE-somes: All Water Emulsion Bodies with Permeable Shells and Selective Compartments. ACS Applied Materials & Interfaces, 2017, 9, 25023-25028.	4.0	47
51	Near field capillary repulsion. Soft Matter, 2013, 9, 779-786.	1.2	44
52	The Dynamic Adsorption of Charged Amphiphiles: The Evolution of the Surface Concentration, Surface Potential, and Surface Tension. Journal of Colloid and Interface Science, 1999, 219, 282-297.	5.0	43
53	Soluble Surfactants Undergoing Surface Phase Transitions: A Maxwell Construction and the Dynamic Surface Tension. Journal of Colloid and Interface Science, 1999, 209, 1-9.	5.0	42
54	Fabrication of Complex Architectures Using Electrodeposition into Patterned Self-Assembled Monolayers. Nano Letters, 2006, 6, 1023-1026.	4.5	40

#	Article	IF	Citations
55	Identification, characterization and utilization of tumor cell selectin ligands in the design of colon cancer diagnostics. Biorheology, 2009, 46, 207-225.	1.2	40
56	Janus Particles with Varying Configurations for Emulsion Stabilization. Industrial & Engineering Chemistry Research, 2019, 58, 20961-20968.	1.8	40
57	Dynamic Penetration of an Insoluble Monolayer by a Soluble Surfactant:Â Theory and Experiment. Langmuir, 1997, 13, 1729-1736.	1.6	39
58	<i>In Situ</i> Mechanical Testing of Nanostructured Bijel Fibers. ACS Nano, 2016, 10, 6338-6344.	7.3	39
59	Surface Tension of an Anionic Surfactant:â€‰ Equilibrium, Dynamics, and Analysis for Aerosol-OT. Langmuir, 2001, 17, 4287-4296.	1.6	38
60	Kinetics of Desorption of Alkanethiolates on Gold. Langmuir, 2006, 22, 3474-3476.	1.6	38
61	Influence of Applied Potential on the Impedance of Alkanethiol SAMs. Langmuir, 2007, 23, 9681-9685.	1.6	38
62	Size-Selective Deposition and Sorting of Lyophilic Colloidal Particles on Surfaces of Patterned Wettability. Langmuir, 2005, 21, 1149-1152.	1.6	37
63	Microbullet assembly: interactions of oriented dipoles in confined nematic liquid crystal. Liquid Crystals, 2013, 40, 1619-1627.	0.9	37
64	All-Aqueous Assemblies via Interfacial Complexation: Toward Artificial Cell and Microniche Development. Langmuir, 2017, 33, 10107-10117.	1.6	37
65	Site-Selective Patterning Using Surfactant-Based Resists. Journal of the American Chemical Society, 2005, 127, 11960-11962.	6.6	36
66	Functional surfaces for high-resolution analysis of cancer cell interactions on exogenous hyaluronic acid. Biomaterials, 2010, 31, 5472-5478.	5.7	36
67	Rough Adhesive Hydrogels (RAd gels) for Underwater Adhesion. ACS Applied Materials & Interfaces, 2017, 9, 27409-27413.	4.0	36
68	Cellular sensing of micron-scale curvature: a frontier in understanding the microenvironment. Open Biology, 2019, 9, 190155.	1.5	36
69	Capillary migration of microdisks on curved interfaces. Journal of Colloid and Interface Science, 2015, 449, 436-442.	5.0	35
70	Motile Bacteria at Oilâ€"Water Interfaces: <i>Pseudomonas aeruginosa</i>. Langmuir, 2020, 36, 6888-6902.	1.6	34
71	Tunable colloid trajectories in nematic liquid crystals near wavy walls. Nature Communications, 2018, 9, 3841.	5.8	32
72	Changes in Electroporation Thresholds of Lipid Membranes by Surfactants and Peptides. Annals of the New York Academy of Sciences, 1999, 888, 249-265.	1.8	30

#	Article	IF	Citations
73	Curvature Effects in the Analysis of Pendant Bubble Data: Comparison of Numerical Solutions, Asymptotic Arguments, and Data. Journal of Colloid and Interface Science, 2001, 241, 154-168.	5.0	30
74	Microbial Nanoculture as an Artificial Microniche. Scientific Reports, 2016, 6, 30578.	1.6	30
75	Change in Stripes for Cholesteric Shells via Anchoring in Moderation. Physical Review X, 2017, 7, .	2.8	29
76	Equations for the Equilibrium Surface Pressure Increase on the Penetration of an Insoluble Monolayer by a Soluble Surfactant. Langmuir, 1996, 12, 2028-2034.	1.6	28
77	Interfacial Hydrodynamic Drag on Nanowires Embedded in Thin Oil Films and Protein Layers. Langmuir, 2009, 25, 7976-7982.	1.6	26
78	Ring around the colloid. Soft Matter, 2013, 9, 9099.	1.2	26
79	Linear and nonlinear microrheology of lysozyme layers forming at the airâ€"water interface. Soft Matter, 2014, 10, 7051-7060.	1.2	26
80	Lassoing saddle splay and the geometrical control of topological defects. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 7106-7111.	3.3	26
81	Experimental realization of the â€œlock-and-keyâ€•mechanism in liquid crystals. Soft Matter, 2016, 12, 6027-6032.	1.2	26
82	Films of Bacteria at Interfaces (FBI): Remodeling of Fluid Interfaces by Pseudomonas aeruginosa. Scientific Reports, 2017, 7, 17864.	1.6	26
83	Cargo carrying bacteria at interfaces. Soft Matter, 2018, 14, 5643-5653.	1.2	26
84	The Effects of Gramicidin on Electroporation of Lipid Bilayers. Biophysical Journal, 1999, 76, 3150-3157.	0.2	25
85	Dynamic Interfacial Adsorption in Aqueous Surfactant Mixtures:Â Theoretical Study. Langmuir, 2001, 17, 5196-5207.	1.6	25
86	Brownian dynamics of colloidal probes during protein-layer formation at an oilâ€"water interface. Soft Matter, 2011, 7, 7635.	1.2	25
87	Solvent-Driven Infiltration of Polymer (SIP) into Nanoparticle Packings. ACS Macro Letters, 2017, 6, 1104-1108.	2.3	25
88	Multifunctional Surfaces with Discrete Functionalized Regions for Biological Applications. Langmuir, 2008, 24, 8134-8142.	1.6	24
89	Tuning interfacial complexation in aqueous two phase systems with polyelectrolytes and nanoparticles for compound all water emulsion bodies (AWE-somes). Physical Chemistry Chemical Physics, 2017, 19, 23825-23831.	1.3	23
90	Shaping nanoparticle fingerprints at the interface of cholesteric droplets. Science Advances, 2018, 4, eaat8597.	4.7	23

#	Article	IF	Citations
91	Elastocapillary interactions on nematic films. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 6336-6340.	3.3	21
92	Dynamic Surface Tensions of Aqueous Surfactant Mixtures:Â Experimental Investigation. Langmuir, 2001, 17, 7494-7500.	1.6	20
93	One-Step Generation of Salt-Responsive Polyelectrolyte Microcapsules via Surfactant-Organized Nanoscale Interfacial Complexation in Emulsions (SO NICE). Langmuir, 2018, 34, 847-853.	1.6	20
94	Surface Topography-Adaptive Robotic Superstructures for Biofilm Removal and Pathogen Detection on Human Teeth. ACS Nano, 2022, 16, 11998-12012.	7.3	20
95	Synergistic assembly of nanoparticles in smectic liquid crystals. Soft Matter, 2015, 11, 7367-7375.	1.2	19
96	Around the corner: Colloidal assembly and wiring in groovy nematic cells. Physical Review E, 2016, 93, 032705.	0.8	19
97	Scalable Manufacturing of Bending-Induced Surface Wrinkles. ACS Applied Materials & Interfaces, 2020, 12, 7658-7664.	4.0	19
98	Directed assembly and micro-manipulation of passive particles at fluid interfaces via capillarity using a magnetic micro-robot. Applied Physics Letters, 2020, 116, .	1.5	19
99	Polymer blend-filled nanoparticle films <i>via</i> monomer-driven infiltration of polymer and photopolymerization. Molecular Systems Design and Engineering, 2018, 3, 96-102.	1.7	18
100	Elasticity-dependent self-assembly of micro-templated chromonic liquid crystal films. Soft Matter, 2014, 10, 3477-3484.	1.2	17
101	Direct mapping of local director field of nematic liquid crystals at the nanoscale. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 15291-15296.	3.3	17
102	Smectic Gardening on Curved Landscapes. Langmuir, 2015, 31, 11135-11142.	1.6	17
103	Experiments and open-loop control of multiple catalytic microrobots. Journal of Micro-Bio Robotics, 2018, 14, 25-34.	2.1	17
104	Fabrication and application of bicontinuous interfacially jammed emulsions gels. Applied Physics Reviews, 2021, 8, .	5.5	17
105	Polymer-Infiltrated Nanoparticle Films Using Capillarity-Based Techniques: Toward Multifunctional Coatings and Membranes. Annual Review of Chemical and Biomolecular Engineering, 2021, 12, 411-437.	3.3	17
106	Curvature-Driven Migration of Colloids on Tense Lipid Bilayers. Langmuir, 2017, 33, 600-610.	1.6	16
107	Eâ€selectinâ€mediated rolling facilitates pancreatic cancer cell adhesion to hyaluronic acid. FASEB Journal, 2017, 31, 5078-5086.	0.2	16
108	Bicontinuous Interfacially Jammed Emulsion Gels (bijels) as Media for Enabling Enzymatic Reactive Separation of a Highly Water Insoluble Substrate. Scientific Reports, 2019, 9, 6363.	1.6	16

#	Article	IF	Citations
109	Scalable Manufacturing of Hierarchical Biphasic Bicontinuous Structures via Vaporization-Induced Phase Separation (VIPS). , 2020, 2, 524-530.		16
110	Scalable Synthesis of Janus Particles with High Naturality. ACS Sustainable Chemistry and Engineering, 2020, 8, 17680-17686.	3.2	16
111	An oscillating bubble technique to determine surfactant mass transfer kinetics. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1996, 114, 41-51.	2.3	15
112	Driven and active colloids at fluid interfaces. Journal of Fluid Mechanics, 2021, 914, .	1.4	15
113	Focal Conic Flower Textures at Curved Interfaces. Physical Review X, 2013, 3, .	2.8	14
114	Curvature-driven assembly in soft matter. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2016, 374, 20150133.	1.6	14
115	Interfacial Flow around Brownian Colloids. Physical Review Letters, 2021, 126, 228003.	2.9	14
116	Octadecanethiol SAMs as Molecular Resists for Electrodeposition of Cobalt. Journal of Physical Chemistry C, 2007, 111, 8686-8691.	1.5	13
117	Trapping and assembly of living colloids at waterâ€"water interfaces. Soft Matter, 2015, 11, 1733-1738.	1.2	13
118	Wetting of a particle in a thin film. Journal of Colloid and Interface Science, 2005, 291, 507-514.	5.0	12
119	Elastocapillary Driven Assembly of Particles at Free-Standing Smectic-A Films. Langmuir, 2018, 34, 2006-2013.	1.6	12
120	Spreading and retraction as a function of drop size. Advances in Colloid and Interface Science, 2010, 161, 61-76.	7.0	11
121	Effect of polymerâ€"nanoparticle interactions on solvent-driven infiltration of polymer (SIP) into nanoparticle packings: a molecular dynamics study. Molecular Systems Design and Engineering, 2020, 5, 666-674.	1.7	10
122	Distinct kinetic and mechanical properties govern mucin 16- and podocalyxin-mediated tumor cell adhesion to E- and L-selectin in shear flow. Oncotarget, 2015, 6, 24842-24855.	0.8	10
123	Edges impose planar alignment in nematic monolayers by directing cell elongation and enhancing migration. Soft Matter, 2018, 14, 6867-6874.	1.2	9
124	Deck the Walls with Anisotropic Colloids in Nematic Liquid Crystals. Langmuir, 2019, 35, 9274-9285.	1.6	9
125	Curvature capillary repulsion. Physical Review Fluids, 2017, 2, .	1.0	9
126	Dynamics of ordered colloidal particle monolayers at nematic liquid crystal interfaces. Soft Matter, 2016, 12, 4715-4724.	1.2	8

#	Article	IF	Citations
127	Fabrication of solvent transfer-induced phase separation bijels with mixtures of hydrophilic and hydrophobic nanoparticles. Soft Matter, 2020, 16, 5848-5853.	1.2	8
128	Reply to the Comments on â€œCurvature capillary migration of microspheresâ€• by P. Galatola and A. WÃ¼rger. Soft Matter, 2016, 12, 333-336.	1.2	6
129	Effect of Confinement on Solvent-Driven Infiltration of the Polymer into Nanoparticle Packings. Macromolecules, 2020, 53, 6740-6746.	2.2	6
130	Dynamic and mechanical evolution of an oilâ€“water interface during bacterial biofilm formation. Soft Matter, 2021, 17, 8195-8210.	1.2	5
131	Colloids in confined liquid crystals: a plot twist in the lock-and-key mechanism. Soft Matter, 2019, 15, 5220-5226.	1.2	4
132	Rapidly Expanding Viscous Drop from a Submerged Orifice at Finite Reynolds Numbers. Annals of the New York Academy of Sciences, 2002, 974, 398-409.	1.8	2
133	Directed micro assembly of passive particles at fluid interfaces using magnetic robots. , 2016, , .		2
134	Dimerization and structure formation of colloids via capillarity at curved fluid interfaces. Soft Matter, 2020, 16, 5861-5870.	1.2	2
135	CONVECTIVE ASSEMBLY OF PATTERNED MEDIA. , 2012, , 59-108.		1
136	Epitaxial Assembly: Pillarâ€Assisted Epitaxial Assembly of Toric Focal Conic Domains of Smecticâ€A Liquid Crystals (Adv. Mater. 46/2011). Advanced Materials, 2011, 23, 5460-5460.	11.1	0