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	Surface Topography-Adaptive Robotic Superstructures for Biofilm Removal and Pathogen Detection on Human Teeth. ACS Nano, 2022, 16, 11998-12012.	7.3	20
2	Dynamic and mechanical evolution of an oilâ€“water interface during bacterial biofilm formation. Soft Matter, 2021, 17, 8195-8210.	1.2	5
3	Driven and active colloids at fluid interfaces. Journal of Fluid Mechanics, 2021, 914, .	1.4	15
4	Fabrication and application of bicontinuous interfacially jammed emulsions gels. Applied Physics Reviews, 2021, 8, .	5.5	17
5	Interfacial Flow around Brownian Colloids. Physical Review Letters, 2021, 126, 228003.	2.9	14
6	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
7	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
8	Effect of Confinement on Solvent-Driven Infiltration of the Polymer into Nanoparticle Packings. Macromolecules, 2020, 53, 6740-6746.	2.2	6
9	Dimerization and structure formation of colloids via capillarity at curved fluid interfaces. Soft Matter, 2020, 16, 5861-5870.	1.2	2
10	Fabrication of solvent transfer-induced phase separation bijels with mixtures of hydrophilic and hydrophobic nanoparticles. Soft Matter, 2020, 16, 5848-5853.	1.2	8
11	Motile Bacteria at Oilâ€“Water Interfaces: <i>Pseudomonas aeruginosa</i>. Langmuir, 2020, 36, 6888-6902.	1.6	34
12	Scalable Manufacturing of Bending-Induced Surface Wrinkles. ACS Applied Materials & Interfaces, 2020, 12, 7658-7664.	4.0	19
13	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
14	Scalable Manufacturing of Hierarchical Biphasic Bicontinuous Structures via Vaporization-Induced Phase Separation (VIPS). , 2020, 2, 524-530.		16
15	Scalable Synthesis of Janus Particles with High Naturality. ACS Sustainable Chemistry and Engineering, 2020, 8, 17680-17686.	3.2	16
16	Janus Particles with Varying Configurations for Emulsion Stabilization. Industrial & Engineering Chemistry Research, 2019, 58, 20961-20968.	1.8	40
17	Deck the Walls with Anisotropic Colloids in Nematic Liquid Crystals. Langmuir, 2019, 35, 9274-9285.	1.6	9
18	Colloids in confined liquid crystals: a plot twist in the lock-and-key mechanism. Soft Matter, 2019, 15, 5220-5226.	1.2	4

#	Article	IF	Citations
19	Catalytic antimicrobial robots for biofilm eradication. Science Robotics, 2019, 4, .	9.9	154
20	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
21	Cellular sensing of micron-scale curvature: a frontier in understanding the microenvironment. Open Biology, 2019, 9, 190155.	1.5	36
22	Robust Bijels for Reactive Separation <i>via</i> Silica-Reinforced Nanoparticle Layers. ACS Nano, 2019, 13, 26-31.	7.3	57
23	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
24	Capillary Assembly of Colloids: Interactions on Planar and Curved Interfaces. Annual Review of Condensed Matter Physics, 2018, 9, 283-305.	5.2	84
25	Elastocapillary Driven Assembly of Particles at Free-Standing Smectic-A Films. Langmuir, 2018, 34, 2006-2013.	1.6	12
26	Gaussian Curvature Directs Stress Fiber Orientation and Cell Migration. Biophysical Journal, 2018, 114, 1467-1476.	0.2	75
27	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
28	Tunable colloid trajectories in nematic liquid crystals near wavy walls. Nature Communications, 2018, 9, 3841.	5.8	32
29	Shaping nanoparticle fingerprints at the interface of cholesteric droplets. Science Advances, 2018, 4, eaat8597.	4.7	23
30	Experiments and open-loop control of multiple catalytic microrobots. Journal of Micro-Bio Robotics, 2018, 14, 25-34.	2.1	17
31	Edges impose planar alignment in nematic monolayers by directing cell elongation and enhancing migration. Soft Matter, 2018, 14, 6867-6874.	1.2	9
32	Cargo carrying bacteria at interfaces. Soft Matter, 2018, 14, 5643-5653.	1.2	26
33	Candida albicans stimulates Streptococcus mutans microcolony development via cross-kingdom biofilm-derived metabolites. Scientific Reports, 2017, 7, 41332.	1.6	148
34	Janus and patchy colloids at fluid interfaces. Current Opinion in Colloid and Interface Science, 2017, 30, 25-33.	3.4	77
35	Curvature-Driven Migration of Colloids on Tense Lipid Bilayers. Langmuir, 2017, 33, 600-610.	1.6	16
36	Multifunctional nanocomposite hollow fiber membranes by solvent transfer induced phase separation. Nature Communications, 2017, 8, 1234.	5.8	94

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37	Change in Stripes for Cholesteric Shells via Anchoring in Moderation. Physical Review X, 2017, 7, .	2.8	29
38	Solvent-Driven Infiltration of Polymer (SIP) into Nanoparticle Packings. ACS Macro Letters, 2017, 6, 1104-1108.	2.3	25
39	All-Aqueous Assemblies via Interfacial Complexation: Toward Artificial Cell and Microniche Development. Langmuir, 2017, 33, 10107-10117.	1.6	37
40	Curvature and Rho activation differentially control the alignment of cells and stress fibers. Science Advances, 2017, 3, e1700150.	4.7	73
41	Films of bacteria at interfaces. Advances in Colloid and Interface Science, 2017, 247, 561-572.	7.0	52
42	Rough Adhesive Hydrogels (RAd gels) for Underwater Adhesion. ACS Applied Materials & Interfaces, 2017, 9, 27409-27413.	4.0	36
43	Eâ€selectinâ€mediated rolling facilitates pancreatic cancer cell adhesion to hyaluronic acid. FASEB Journal, 2017, 31, 5078-5086.	0.2	16
44	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
45	AWE-somes: All Water Emulsion Bodies with Permeable Shells and Selective Compartments. ACS Applied Materials & Interfaces, 2017, 9, 25023-25028.	4.0	47
46	Films of Bacteria at Interfaces (FBI): Remodeling of Fluid Interfaces by Pseudomonas aeruginosa. Scientific Reports, 2017, 7, 17864.	1.6	26
47	Curvature capillary repulsion. Physical Review Fluids, 2017, 2, .	1.0	9
48	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
49	Microbial Nanoculture as an Artificial Microniche. Scientific Reports, 2016, 6, 30578.	1.6	30
50	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
51	<i>In Situ</i> Mechanical Testing of Nanostructured Bijel Fibers. ACS Nano, 2016, 10, 6338-6344.	7.3	39
52	Experimental realization of the â€œlock-and-keyâ€•mechanism in liquid crystals. Soft Matter, 2016, 12, 6027-6032.	1.2	26
53	Dynamics of ordered colloidal particle monolayers at nematic liquid crystal interfaces. Soft Matter, 2016, 12, 4715-4724.	1.2	8
54	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

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55	Clickable Janus Particles. Journal of the American Chemical Society, 2016, 138, 11437-11440.	6.6	106
56	Around the corner: Colloidal assembly and wiring in groovy nematic cells. Physical Review E, 2016, 93, 032705.	0.8	19
57	Directed micro assembly of passive particles at fluid interfaces using magnetic robots. , 2016, , .		2
58	Curvature-driven assembly in soft matter. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2016, 374, 20150133.	1.6	14
59	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
60	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
61	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
62	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
63	Trapping and assembly of living colloids at waterâ€“water interfaces. Soft Matter, 2015, 11, 1733-1738.	1.2	13
64	Interactions and Stress Relaxation in Monolayers of Soft Nanoparticles at Fluid-Fluid Interfaces. Physical Review Letters, 2015, 114, 108301.	2.9	58
65	Films of bacteria at interfaces: three stages of behaviour. Soft Matter, 2015, 11, 6062-6074.	1.2	49
66	Curvature capillary migration of microspheres. Soft Matter, 2015, 11, 6768-6779.	1.2	47
67	Capillary migration of microdisks on curved interfaces. Journal of Colloid and Interface Science, 2015, 449, 436-442.	5.0	35
68	Curvatureâ€Driven, Oneâ€Step Assembly of Reconfigurable Smectic Liquid Crystal â€œCompound Eyeâ€•Lenses. Advanced Optical Materials, 2015, 3, 1287-1292.	3.6	56
69	Smectic Gardening on Curved Landscapes. Langmuir, 2015, 31, 11135-11142.	1.6	17
70	Synergistic assembly of nanoparticles in smectic liquid crystals. Soft Matter, 2015, 11, 7367-7375.	1.2	19
71	Polymer nanocomposite films with extremely high nanoparticle loadings via capillary rise infiltration (CaRI). Nanoscale, 2015, 7, 798-805.	2.8	70
72	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

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73	Linear and nonlinear microrheology of lysozyme layers forming at the airâ€“water interface. Soft Matter, 2014, 10, 7051-7060.	1.2	26
74	Elasticity-dependent self-assembly of micro-templated chromonic liquid crystal films. Soft Matter, 2014, 10, 3477-3484.	1.2	17
75	Ring around the colloid. Soft Matter, 2013, 9, 9099.	1.2	26
76	Focal Conic Flower Textures at Curved Interfaces. Physical Review X, 2013, 3, .	2.8	14
77	Near field capillary repulsion. Soft Matter, 2013, 9, 779-786.	1.2	44
78	Microbullet assembly: interactions of oriented dipoles in confined nematic liquid crystal. Liquid Crystals, 2013, 40, 1619-1627.	0.9	37
79	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
80	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
81	CONVECTIVE ASSEMBLY OF PATTERNED MEDIA. , 2012, , 59-108.		1
82	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
83	Forced Desorption of Nanoparticles from an Oilâ€“Water Interface. Langmuir, 2012, 28, 1663-1667.	1.6	87
84	Capillary interactions between anisotropic particles. Soft Matter, 2012, 8, 9957.	1.2	240
85	Chemotaxis of Cell Populations through Confined Spaces at Single-Cell Resolution. PLoS ONE, 2012, 7, e29211.	1.1	117
86	Brownian dynamics of colloidal probes during protein-layer formation at an oilâ€“water interface. Soft Matter, 2011, 7, 7635.	1.2	25
87	Pillarâ€Assisted Epitaxial Assembly of Toric Focal Conic Domains of Smecticâ€A Liquid Crystals. Advanced Materials, 2011, 23, 5519-5523.	11.1	51
88	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
89	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
90	Functional surfaces for high-resolution analysis of cancer cell interactions on exogenous hyaluronic acid. Biomaterials, 2010, 31, 5472-5478.	5.7	36

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91	Spreading and retraction as a function of drop size. Advances in Colloid and Interface Science, 2010, 161, 61-76.	7.0	11
92	Combined Passive and Active Microrheology Study of Protein-Layer Formation at an Airâ˘'Water Interface. Langmuir, 2010, 26, 2650-2658.	1.6	67
93	Orientation and Self-Assembly of Cylindrical Particles by Anisotropic Capillary Interactions. Langmuir, 2010, 26, 15142-15154.	1.6	145
94	Identification, characterization and utilization of tumor cell selectin ligands in the design of colon cancer diagnostics. Biorheology, 2009, 46, 207-225.	1.2	40
95	Oriented Assembly of Metamaterials. Science, 2009, 325, 159-160.	6.0	185
96	Interfacial Hydrodynamic Drag on Nanowires Embedded in Thin Oil Films and Protein Layers. Langmuir, 2009, 25, 7976-7982.	1.6	26
97	Multifunctional Surfaces with Discrete Functionalized Regions for Biological Applications. Langmuir, 2008, 24, 8134-8142.	1.6	24
98	Spontaneous Pattern Formation by Dip Coating of Colloidal Suspensions on Homogeneous Surfaces. Langmuir, 2007, 23, 2180-2183.	1.6	110
99	Octadecanethiol SAMs as Molecular Resists for Electrodeposition of Cobalt. Journal of Physical Chemistry C, 2007, 111, 8686-8691.	1.5	13
100	Influence of Applied Potential on the Impedance of Alkanethiol SAMs. Langmuir, 2007, 23, 9681-9685.	1.6	38
101	Fabrication of Complex Architectures Using Electrodeposition into Patterned Self-Assembled Monolayers. Nano Letters, 2006, 6, 1023-1026.	4.5	40
102	Kinetics of Desorption of Alkanethiolates on Gold. Langmuir, 2006, 22, 3474-3476.	1.6	38
103	Orientation of a Nanocylinder at a Fluid Interface. Journal of Physical Chemistry B, 2006, 110, 4283-4290.	1.2	52
104	Wetting of a particle in a thin film. Journal of Colloid and Interface Science, 2005, 291, 507-514.	5.0	12
105	Site-Selective Patterning Using Surfactant-Based Resists. Journal of the American Chemical Society, 2005, 127, 11960-11962.	6.6	36
106	Size-Selective Deposition and Sorting of Lyophilic Colloidal Particles on Surfaces of Patterned Wettability. Langmuir, 2005, 21, 1149-1152.	1.6	37
107	Assembly of Colloidal Particles by Evaporation on Surfaces with Patterned Hydrophobicity. Langmuir, 2004, 20, 3062-3067.	1.6	163
108	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

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109	Influence of Surfactants on an Evaporating Drop:Â Fluorescence Images and Particle Deposition Patterns. Langmuir, 2003, 19, 8271-8279.	1.6	147
110	Relationship between Absorbance Spectra and Particle Size Distributions for Quantum-Sized Nanocrystals. Journal of Physical Chemistry B, 2003, 107, 10412-10415.	1.2	212
111	Patterning of Small Particles by a Surfactant-Enhanced Marangoni-BÃ©nard Instability. Physical Review Letters, 2002, 88, 164501.	2.9	185
112	Quenching of Growth of ZnO Nanoparticles by Adsorption of Octanethiol. Journal of Physical Chemistry B, 2002, 106, 6985-6990.	1.2	213
113	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
114	Dynamic Interfacial Adsorption in Aqueous Surfactant Mixtures:Â Theoretical Study. Langmuir, 2001, 17, 5196-5207.	1.6	25
115	Surface Tension of an Anionic Surfactant:â€‰ Equilibrium, Dynamics, and Analysis for Aerosol-OT. Langmuir, 2001, 17, 4287-4296.	1.6	38
116	Dynamic Surface Tensions of Aqueous Surfactant Mixtures:Â Experimental Investigation. Langmuir, 2001, 17, 7494-7500.	1.6	20
117	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
118	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
119	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
120	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
121	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
122	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
123	The Effects of Gramicidin on Electroporation of Lipid Bilayers. Biophysical Journal, 1999, 76, 3150-3157.	0.2	25
124	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
125	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
126	An Adsorptionâ€"Desorption-Controlled Surfactant on a Deforming Droplet. Journal of Colloid and Interface Science, 1998, 208, 68-80.	5.0	84

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127	The Reduction in Electroporation Voltages by the Addition of a Surfactant to Planar Lipid Bilayers. Biophysical Journal, 1998, 75, 880-888.	0.2	56
128	Surfactant-induced retardation of the thermocapillary migration of a droplet. Journal of Fluid Mechanics, 1997, 340, 35-59.	1.4	50
129	Dynamic Penetration of an Insoluble Monolayer by a Soluble Surfactant:Â Theory and Experiment. Langmuir, 1997, 13, 1729-1736.	1.6	39
130	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
131	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
132	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
133	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
134	Remobilizing Surfactant Retarded Fluid Particle Interfaces. Journal of Colloid and Interface Science, 1994, 163, 177-189.	5.0	93
135	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
136	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