Kyle J M Bishop

List of Publications by Year
in descending order

91 papers	8,128 citations	76031 42 h-index	53065 89 g-index
93 all docs	93 docs citations	93 times ranked	11580 citing authors

#	Article	IF	Citations
1	Self-assembly across scales. Nature Materials, 2022, 21, 501-502.	13.3	6
2	Insights into Chemically Fueled Supramolecular Polymers. Chemical Reviews, 2022, 122, 11759-11777.	23.0	52
3	Programmable topotaxis of magnetic rollers in time-varying fields. Soft Matter, 2021, 17, 1538-1547.	1.2	9
4	Fabrication and Electric Field-Driven Active Propulsion of Patchy Microellipsoids. Journal of Physical Chemistry B, 2021, 125, 4232-4240.	1.2	25
5	Microchemomechanical devices using DNA hybridization. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	14
6	Quincke Oscillations of Colloids at Planar Electrodes. Physical Review Letters, 2021, 126, 258001.	2.9	17
7	Automating Bayesian inference and design to quantify acoustic particle levitation. Soft Matter, 2021, 17, 10128-10139.	1.2	3
8	Magneto-Capillary Particle Dynamics at Curved Interfaces: Time-Varying Fields and Drop Mixing. Langmuir, 2020, 36, .	1.6	18
9	A perturbation solution to the full Poissonâ€“Nernstâ€“Planck equations yields an asymmetric rectified electric field. Soft Matter, 2020, 16, 7052-7062.	1.2	15
10	Swelling Cholesteric Liquid Crystal Shells to Direct the Assembly of Particles at the Interface. ACS Nano, 2020, 14, 5459-5467.	7.3	14
11	The shape of things to come. Nature Materials, 2019, 18, 1146-1147.	13.3	4
12	Shape-directed rotation of homogeneous micromotors via catalytic self-electrophoresis. Nature Communications, 2019, 10, 495.	5.8	108
13	Learning Retrosynthetic Planning through Simulated Experience. ACS Central Science, 2019, 5, 970-981.	5.3	97
14	Directed propulsion of spherical particles along three dimensional helical trajectories. Nature Communications, 2019, 10, 2575.	5.8	59
15	Thermodynamic costs of dynamic function in active soft matter. Current Opinion in Solid State and Materials Science, 2019, 23, 28-40.	5.6	13
16	Autonomous navigation of shape-shifting microswimmers. Physical Review Research, 2019, 1, .	1.3	9
17	Contact Charge Electrophoresis: Fundamentals and Microfluidic Applications. Langmuir, 2018, 34, 6315-6327.	1.6	34
18	Shape-directed dynamics of active colloids powered by induced-charge electrophoresis. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E1090-E1099.	3.3	52

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19	Shape-Directed Microspinners Powered by Ultrasound. ACS Nano, 2018, 12, 2939-2947.	7.3	74
20	Emergence of traveling waves in linear arrays of electromechanical oscillators. Communications Physics, 2018, 1, .	2.0	4
21	Measurement and mitigation of free convection in microfluidic gradient generators. Lab on A Chip, 2018, 18, 3371-3378.	3.1	22
22	Magneto-capillary dynamics of amphiphilic Janus particles at curved liquid interfaces. Soft Matter, 2018, 14, 4661-4665.	1.2	25
23	PEEâ€“PEO Block Copolymer Exchange Rate between Mixed Micelles Is Detergent and Temperature Activated. Macromolecules, 2017, 50, 2484-2494.	2.2	12
24	Electric generation and ratcheted transport of contact-charged drops. Physical Review E, 2017, 96, 043101.	0.8	5
25	Living bandgaps. Nature Materials, 2017, 16, 786-787.	13.3	6
26	Active colloidal particles at fluid-fluid interfaces. Current Opinion in Colloid and Interface Science, 2017, 32, 57-68.	3.4	81
27	Hierarchical Selfâ€Assembly for Nanomedicine. Angewandte Chemie - International Edition, 2016, 55, 1598-1600.	7.2	31
28	Ratcheted electrophoresis of Brownian particles. Applied Physics Letters, 2016, 108, .	1.5	12
29	Directed Motion of Metallodielectric Particles by Contact Charge Electrophoresis. Langmuir, 2016, 32, 13167-13173.	1.6	21
30	Particle Zeta Potentials Remain Finite in Saturated Salt Solutions. Langmuir, 2016, 32, 11837-11844.	1.6	31
31	Hierarchische Selbstorganisation fÃ¼r die Nanomedizin. Angewandte Chemie, 2016, 128, 1626-1628.	1.6	5
32	Amphiphilic Nanoparticles Control the Growth and Stability of Lipid Bilayers with Open Edges. Angewandte Chemie - International Edition, 2015, 54, 10816-10820.	7.2	14
33	Nanoscale Self-Assembly: Seeing Is Understanding. ACS Central Science, 2015, 1, 16-17.	5.3	3
34	Coarsening dynamics of binary liquids with active rotation. Soft Matter, 2015, 11, 8409-8416.	1.2	18
35	Vortex flows impart chirality-specific lift forces. Nature Communications, 2015, 6, 5640.	5.8	36
36	Contact Charge Electrophoresis: Experiment and Theory. Langmuir, 2015, 31, 3808-3814.	1.6	42

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37	Shape control and compartmentalization in active colloidal cells. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E4642-50.	3.3	67
38	Programmable self-assembly. Nature Materials, 2015, 14, 2-9.	13.3	233
39	Charge and force on a conductive sphere between two parallel electrodes: A Stokesian dynamics approach. Journal of Applied Physics, 2014, 116, 074903.	1.1	32
40	Self-Assembly of Nanoparticle Amphiphiles with Adaptive Surface Chemistry. ACS Nano, 2014, 8, 9979-9987.	7.3	65
41	Microfluidic mixing of nonpolar liquids by contact charge electrophoresis. Lab on A Chip, 2014, 14, 4230-4236.	3.1	28
42	Ratcheted electrophoresis for rapid particle transport. Lab on A Chip, 2013, 13, 4295.	3.1	35
43	Electric winds driven by time oscillating corona discharges. Journal of Applied Physics, 2013, 114, .	1.1	51
44	Integration of Gold Nanoparticles into Bilayer Structures via Adaptive Surface Chemistry. Journal of the American Chemical Society, 2013, 135, 5950-5953.	6.6	89
45	When and Why Like-Sized, Oppositely Charged Particles Assemble into Diamond-like Crystals. Journal of Physical Chemistry Letters, 2013, 4, 1507-1511.	2.1	19
46	ac electric fields drive steady flows in flames. Physical Review E, 2012, 86, 036314.	0.8	45
47	Templated Synthesis of Amphiphilic Nanoparticles at the Liquidâ€“Liquid Interface. ACS Nano, 2012, 6, 1044-1050.	7.3	118
48	Using shape for self-assembly. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2012, 370, 2824-2847.	1.6	93
49	Charged nanoparticles as supramolecular surfactants for controlling the growth and stabilityÂofÂmicrocrystals. Nature Materials, 2012, 11, 227-232.	13.3	59
50	Polymer-like Conformation and Growth Kinetics of Bi₂S₃ Nanowires. Journal of the American Chemical Society, 2012, 134, 9327-9334.	6.6	62
51	Parallel Optimization of Synthetic Pathways within the Network of Organic Chemistry. Angewandte Chemie - International Edition, 2012, 51, 7928-7932.	7.2	107
52	Externally Applied Electric Fields up to 1.6 Ã— 10⁵ V/m Do Not Affect the Homogeneous Nucleation of Ice in Supercooled Water. Journal of Physical Chemistry B, 2011, 115, 1089-1097.	1.2	84
53	Bubbles navigating through networks of microchannels. Lab on A Chip, 2011, 11, 3970.	3.1	32
54	Dynamic internal gradients control and direct electric currents within nanostructured materials. Nature Nanotechnology, 2011, 6, 740-746.	15.6	48

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55	Contact Electrification between Identical Materials. Angewandte Chemie - International Edition, 2010, 49, 946-949.	7.2	168
56	Selfâ€Division of Macroscopic Droplets: Partitioning of Nanosized Cargo into Nanoscale Micelles. Angewandte Chemie - International Edition, 2010, 49, 6756-6759.	7.2	49
57	Formation of Dense Nanoparticle Monolayers Mediated by Alternating Current Electric Fields and Electrohydrodynamic Flows. Journal of Physical Chemistry C, 2010, 114, 8800-8805.	1.5	18
58	Antibacterial Nanoparticle Monolayers Prepared on Chemically Inert Surfaces by Cooperative Electrostatic Adsorption (CELA). ACS Applied Materials & Interfaces, 2010, 2, 1206-1210.	4.0	46
59	Precision Assembly of Oppositely and Like-Charged Nanoobjects Mediated by Charge-Induced Dipole Interactions. Nano Letters, 2010, 10, 2275-2280.	4.5	49
60	â€œRemoteâ€•Fabrication via Threeâ€Dimensional Reactionâ€Diffusion: Making Complex Coreâ€andâ€Shell Particles and Assembling Them into Openâ€Lattice Crystals. Advanced Materials, 2009, 21, 1911-1915.	11.1	12
61	Size Selection During Crystallization of Oppositely Charged Nanoparticles. Chemistry - A European Journal, 2009, 15, 2032-2035.	1.7	18
62	Making Use of Bond Strength and Steric Hindrance in Nanoscale â€œSynthesisâ€• Angewandte Chemie - International Edition, 2009, 48, 9477-9480.	7.2	57
63	Synthetic popularity reflects chemical reactivity. Journal of Physical Organic Chemistry, 2009, 22, 897-902.	0.9	15
64	Microâ€•and Nanoprinting into Solids Using Reactionâ€Diffusion Etching and Hydrogel Stamps. Small, 2009, 5, 22-27.	5.2	30
65	Nanoscale Forces and Their Uses in Selfâ€Assembly. Small, 2009, 5, 1600-1630.	5.2	1,362
66	Photoconductance and inverse photoconductance in films of functionalized metal nanoparticles. Nature, 2009, 460, 371-375.	13.7	239
67	The 'wired' universe of organic chemistry. Nature Chemistry, 2009, 1, 31-36.	6.6	130
68	Directing cell motions on micropatterned ratchets. Nature Physics, 2009, 5, 606-612.	6.5	281
69	Mechanism of Reactive Wetting and Direct Visual Determination of the Kinetics of Self-Assembled Monolayer Formation. Langmuir, 2009, 25, 9-12.	1.6	11
70	Additivity of the Excess Energy Dissipation Rate in a Dynamically Self-Assembled System. Journal of Physical Chemistry B, 2009, 113, 7574-7578.	1.2	12
71	Mechanism of the Cooperative Adsorption of Oppositely Charged Nanoparticles. Journal of Physical Chemistry A, 2009, 113, 3799-3803.	1.1	34
72	Precipitation of Oppositely Charged Nanoparticles by Dilution and/or Temperature Increase. Journal of Physical Chemistry B, 2009, 113, 1413-1417.	1.2	28

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73	The dependence between forces and dissipation rates mediating dynamic self-assembly. Soft Matter, 2009, 5, 1279.	1.2	24
74	Writing Selfâ€Erasing Images using Metastable Nanoparticle â€œInksâ€. Angewandte Chemie - International Edition, 2009, 48, 7035-7039.	7.2	344
75	Self-assembly: from crystals to cells. Soft Matter, 2009, 5, 1110.	1.2	385
76	Dynamic Self-Assembly in Ensembles of Camphor Boats. Journal of Physical Chemistry B, 2008, 112, 10848-10853.	1.2	99
77	Wet-Stamped Precipitant Gradients Control the Growth of Protein Microcrystals in an Array of Nanoliter Wells. Journal of the American Chemical Society, 2008, 130, 2146-2147.	6.6	12
78	Light-controlled self-assembly of reversible and irreversible nanoparticle suprastructures. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 10305-10309.	3.3	384
79	Electrostatically â€œPatchyâ€•Coatings via Cooperative Adsorption of Charged Nanoparticles. Journal of the American Chemical Society, 2007, 129, 15623-15630.	6.6	51
80	â€œNanoionsâ€: Fundamental Properties and Analytical Applications of Charged Nanoparticles. ChemPhysChem, 2007, 8, 2171-2176.	1.0	59
81	Plastic and Moldable Metals by Self-Assembly of Sticky Nanoparticle Aggregates. Science, 2007, 316, 261-264.	6.0	270
82	Principles and Implementations of Dissipative (Dynamic) Self-Assembly. Journal of Physical Chemistry B, 2006, 110, 2482-2496.	1.2	268
83	Electrostatic Self-Assembly of Binary Nanoparticle Crystals with a Diamond-Like Lattice. Science, 2006, 312, 420-424.	6.0	841
84	The Core and Most Useful Molecules in Organic Chemistry. Angewandte Chemie - International Edition, 2006, 45, 5348-5354.	7.2	83
85	Architecture and Evolution of Organic Chemistry. Angewandte Chemie - International Edition, 2005, 44, 7263-7269.	7.2	115
86	Cover Picture: Architecture and Evolution of Organic Chemistry (Angew. Chem. Int. Ed. 44/2005). Angewandte Chemie - International Edition, 2005, 44, 7145-7145.	7.2	0
87	Reactive Surface Micropatterning by Wet Stamping. Langmuir, 2005, 21, 2637-2640.	1.6	49
88	Micro- and nanotechnology via reactionâ€“diffusion. Soft Matter, 2005, 1, 114.	1.2	196
89	Aqueous Cross Second Virial Coefficients with the Haydenâˆ'O'Connell Correlation. Industrial & Engineering Chemistry Research, 2005, 44, 630-633.	1.8	6
90	Micropatterning Chemical Oscillations:Â Waves, Autofocusing, and Symmetry Breaking. Journal of the American Chemical Society, 2005, 127, 15943-15948.	6.6	20

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91	Multicolour micropatterning of thin films of dry gels. Nature Materials, 2004, 3, 729-735.	13.3	86