James W Swan

List of Publications by Year
in descending order

61	1,798	279798	289244
papers	citations	23 h-index	40 g-index

61	61	61	2055
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Thermally fluctuating, semiflexible sheets in simple shear flow. Soft Matter, 2022, 18, 768-782.	2.7	2
2	Unsteady and lineal translation of a sphere through a viscoelastic fluid. Physical Review Fluids, 2022, 7, .	2.5	3
3	Quantifying the hydrodynamic contribution to electrical transport in non-Brownian suspensions. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	5
4	Shear driven vorticity aligned flocs in a suspension of attractive rigid rods. Soft Matter, 2021, 17, 1232-1245.	2.7	13
5	Calculation of therapeutic antibody viscosity with coarse-grained models, hydrodynamic calculations and machine learning-based parameters. MAbs, 2021, 13, 1907882.	5.2	26
6	Repulsive, Densely Packed Ligand-Shells Mediate Interactions between PbS Nanocrystals in Solution. Journal of Physical Chemistry C, 2021, 125, 8014-8020.	3.1	4
7	Bayesian estimations of orientation distribution functions from small-angle scattering enable direct prediction of mechanical stress in anisotropic materials. Physical Review Materials, 2021, 5, .	2.4	8
8	The stress in a dispersion of mutually polarizable spheres. Journal of Chemical Physics, 2021, 155, 014903.	3.0	0
9	Medium amplitude parallel superposition (MAPS) rheology of a wormlike micellar solution. Rheologica Acta, 2021, 60, 729-739.	2.4	2
10	Buckling, crumpling, and tumbling of semiflexible sheets in simple shear flow. Soft Matter, 2021, 17, 4707-4718.	2.7	14
11	Underscreening and hidden ion structures in large scale simulations of concentrated electrolytes. Journal of Chemical Physics, 2021, 155, 134903.	3.0	20
12	Optical tweezer measurements of asymptotic nonlinearities in complex fluids. Physical Review E, 2021, 104, 064604.	2.1	3
13	Effect of Protein Surface Charge Distribution on Proteinâ€“Polyelectrolyte Complexation. Biomacromolecules, 2020, 21, 3026-3037.	5.4	35
14	Optimal loading for injection. AICHE Journal, 2020, 66, e17102.	3.6	1
15	Medium amplitude parallel superposition (MAPS) rheology. Part 2: Experimental protocols and data analysis. Journal of Rheology, 2020, 64, 1263-1293.	2.6	11
16	Spontaneous Electrokinetic Magnus Effect. Physical Review Letters, 2020, 124, 208002.	7.8	5
17	The Importance of Unbound Ligand in Nanocrystal Superlattice Formation. Journal of the American Chemical Society, 2020, 142, 9675-9685.	13.7	23
18	Reversible Temperature-Induced Structural Transformations in PbS Nanocrystal Superlattices. Journal of Physical Chemistry C, 2020, 124, 13456-13466.	3.1	9

#	Article	IF	Citations
19	Collective mode Brownian dynamics: A method for fast relaxation of statistical ensembles. Journal of Chemical Physics, 2020, 152, 094104.	3.0	1
20	Medium amplitude parallel superposition (MAPS) rheology. Part 1: Mathematical framework and theoretical examples. Journal of Rheology, 2020, 64, 551-579.	2.6	19
21	Colloidal Gelation through Thermally Triggered Surfactant Displacement. Langmuir, 2019, 35, 9464-9473.	3.5	16
22	Characterization of colloidal nanocrystal surface structure using small angle neutron scattering and efficient Bayesian parameter estimation. Journal of Chemical Physics, 2019, 150, 244702.	3.0	22
23	Quantification of a PbClx Shell on the Surface of PbS Nanocrystals. , 2019, 1, 209-216.		35
24	Evolution of structure and dynamics of thermo-reversible nanoparticle gelsâ€"A combined XPCS and rheology study. Journal of Chemical Physics, 2019, 151, 104902.	3.0	6
25	Fast Stokesian dynamics. Journal of Fluid Mechanics, 2019, 878, 544-597.	3.4	39
26	Hydrodynamics control shear-induced pattern formation in attractive suspensions. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 12193-12198.	7.1	53
27	Surface heterogeneity affects percolation and gelation of colloids: dynamic simulations with random patchy spheres. Soft Matter, 2019, 15, 5094-5108.	2.7	23
28	Colloidal gel elasticity arises from the packing of locally glassy clusters. Nature Communications, 2019, 10, 2237.	12.8	88
29	Markov Chain Monte Carlo Sampling for Target Analysis of Transient Absorption Spectra. Journal of Physical Chemistry A, 2019, 123, 3893-3902.	2.5	10
30	High-Resolution Nanoparticle Sizing with Maximum A Posteriori Nanoparticle Tracking Analysis. ACS Nano, 2019, 13, 3940-3952.	14.6	30
31	Short and Soft: Multidomain Organization, Tunable Dynamics, and Jamming in Suspensions of Grafted Colloidal Cylinders with a Small Aspect Ratio. Langmuir, 2019, 35, 17103-17113.	3.5	5
32	Transmutable Colloidal Crystals and Active Phase Separation via Dynamic, Directed Self-Assembly with Toggled External Fields. ACS Nano, 2019, 13, 764-771.	14.6	21
33	On the viscosity of adhesive hard sphere dispersions: Critical scaling and the role of rigid contacts. Journal of Rheology, 2019, 63, 229-245.	2.6	18
34	Rapid sampling of stochastic displacements in Brownian dynamics simulations with stresslet constraints. Journal of Chemical Physics, 2018, 148, 044114.	3.0	27
35	Structure and Relaxation in Solutions of Monoclonal Antibodies. Journal of Physical Chemistry B, 2018, 122, 2867-2880.	2.6	35
36	Normal modes of weak colloidal gels. Physical Review E, 2018, 97, 012608.	2.1	14

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37	Large scale anisotropies in sheared colloidal gels. Journal of Rheology, 2018, 62, 405-418.	2.6	32
38	Phase Separation Kinetics of Dynamically Self-Assembling Nanoparticles with Toggled Interactions. Langmuir, 2018, 34, 1029-1041.	3.5	13
39	In situ measurement of localization error in particle tracking microrheology. Rheologica Acta, 2018, 57, 793-800.	2.4	2
40	Modelling a hydrodynamic instability in freely settling colloidal gels. Journal of Fluid Mechanics, 2018, 856, 1014-1044.	3.4	12
41	Field-Directed Self-Assembly of Mutually Polarizable Nanoparticles. Langmuir, 2018, 34, 7117-7134.	3.5	28
42	Thermal processing of thermogelling nanoemulsions as a route to tune material properties. Soft Matter, 2018, 14, 5604-5614.	2.7	8
43	Rapid sampling of stochastic displacements in Brownian dynamics simulations. Journal of Chemical Physics, 2017, 146, 124116.	3.0	79
44	How Confinement-Induced Structures Alter the Contribution of Hydrodynamic and Short-Ranged Repulsion Forces to the Viscosity of Colloidal Suspensions. Physical Review X, 2017, 7, .	8.9	11
45	Rapid calculation of hydrodynamic and transport properties in concentrated solutions of colloidal particles and macromolecules. Physics of Fluids, 2016, 28, .	4.0	34
46	Dynamic, Directed Self-Assembly of Nanoparticles via Toggled Interactions. ACS Nano, 2016, 10, 5260-5271.	14.6	47
47	Lipid Exchange Envelope Penetration (LEEP) of Nanoparticles for Plant Engineering: A Universal Localization Mechanism. Nano Letters, 2016, 16, 1161-1172.	9.1	213
48	Coarsening mechanics of a colloidal suspension in toggled fields. Journal of Chemical Physics, 2015, 143, 074901.	3.0	7
49	The medium amplitude oscillatory shear of semi-dilute colloidal dispersions. Part I: Linear response and normal stress differences. Journal of Rheology, 2014, 58, 307-337.	2.6	25
50	Directed colloidal self-assembly in toggled magnetic fields. Soft Matter, 2014, 10, 1102-1109.	2.7	90
51	Buckling Instability of Self-Assembled Colloidal Columns. Physical Review Letters, 2014, 113, 138301.	7.8	8
52	Calibration of an optical tweezer microrheometer by sequential impulse response. Rheologica Acta, 2013, 52, 455-465.	2.4	12
53	Multi-scale kinetics of a field-directed colloidal phase transition. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 16023-16028.	7.1	50
54	Measuring Thermal Rupture Force Distributions from an Ensemble of Trajectories. Physical Review Letters, 2012, 109, 198302.	7.8	4

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55	The hydrodynamics of confined dispersions. Journal of Fluid Mechanics, 2011, 687, 254-299.	3.4	43
56	Modeling hydrodynamic self-propulsion with Stokesian Dynamics. Or teaching Stokesian Dynamics to swim. Physics of Fluids, 2011, 23, .	4.0	66
57	Anisotropic diffusion in confined colloidal dispersions: The evanescent diffusivity. Journal of Chemical Physics, 2011, 135, 014701.	3.0	16
58	Particle motion between parallel walls: Hydrodynamics and simulation. Physics of Fluids, 2010, 22, .	4.0	85
59	Dynamics of Concentrated Hard-Sphere Colloids Near a Wall. Physical Review Letters, 2009, 102, 068302.	7.8	73
60	On the hydrodynamics of â€˜slipâ€“stickâ€™ spheres. Journal of Fluid Mechanics, 2008, 606, 115-132.	3.4	40
61	Simulation of hydrodynamically interacting particles near a no-slip boundary. Physics of Fluids, 2007, 19, .	4.0	154