James W Swan

List of Publications by Citations

58 papers	1,260 citations	20 h-index	34 g-index
61 ext. papers	1,536 ext. citations	5.6 avg, IF	5.24 L-index

#	Paper	IF	Citations
58	Lipid Exchange Envelope Penetration (LEEP) of Nanoparticles for Plant Engineering: A Universal Localization Mechanism. *Nano Letters*, **2016**, 16, 1161-72	11.5	139
57	Simulation of hydrodynamically interacting particles near a no-slip boundary. *Physics of Fluids*, **2007**, 19, 113306	4.4	130
56	Directed colloidal self-assembly in toggled magnetic fields. *Soft Matter*, **2014**, 10, 1102-9	3.6	73
55	Dynamics of concentrated hard-sphere colloids near a wall. *Physical Review Letters*, **2009**, 102, 068302	7.4	69
54	Particle motion between parallel walls: Hydrodynamics and simulation. *Physics of Fluids*, **2010**, 22, 103301	4.4	68
53	Rapid sampling of stochastic displacements in Brownian dynamics simulations. *Journal of Chemical Physics*, **2017**, 146, 124116	3.9	57
52	Modeling hydrodynamic self-propulsion with Stokesian Dynamics. Or teaching Stokesian Dynamics to swim. *Physics of Fluids*, **2011**, 23, 071901	4.4	53
51	Colloidal gel elasticity arises from the packing of locally glassy clusters. *Nature Communications*, **2019**, 10, 2237	17.4	45
50	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, 16023-8	11.5	44
49	On the hydrodynamics of slip and stick spheres. *Journal of Fluid Mechanics*, **2008**, 606, 115-132	3.7	37
48	Dynamic, Directed Self-Assembly of Nanoparticles via Toggled Interactions. *ACS Nano*, **2016**, 10, 5260-71	16.7	37
47	The hydrodynamics of confined dispersions. *Journal of Fluid Mechanics*, **2011**, 687, 254-299	3.7	35
46	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	11.5	31
45	Rapid calculation of hydrodynamic and transport properties in concentrated solutions of colloidal particles and macromolecules. *Physics of Fluids*, **2016**, 28, 011902	4.4	28
44	Structure and Relaxation in Solutions of Monoclonal Antibodies. *Journal of Physical Chemistry B*, **2018**, 122, 2867-2880	3.4	23
43	Quantification of a PbClx Shell on the Surface of PbS Nanocrystals **2019**, 1, 209-216		23
42	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	4.1	21

41	Fast Stokesian dynamics. *Journal of Fluid Mechanics*, **2019**, 878, 544-597	3.7	20
40	Large scale anisotropies in sheared colloidal gels. *Journal of Rheology*, **2018**, 62, 405-418	4.1	20
39	Field-Directed Self-Assembly of Mutually Polarizable Nanoparticles. *Langmuir*, **2018**, 34, 7117-7134	4	20
38	Characterization of colloidal nanocrystal surface structure using small angle neutron scattering and efficient Bayesian parameter estimation. *Journal of Chemical Physics*, **2019**, 150, 244702	3.9	16
37	Surface heterogeneity affects percolation and gelation of colloids: dynamic simulations with random patchy spheres. *Soft Matter*, **2019**, 15, 5094-5108	3.6	15
36	High-Resolution Nanoparticle Sizing with Maximum A Posteriori Nanoparticle Tracking Analysis. *ACS Nano*, **2019**, 13, 3940-3952	16.7	15
35	Rapid sampling of stochastic displacements in Brownian dynamics simulations with stresslet constraints. *Journal of Chemical Physics*, **2018**, 148, 044114	3.9	15
34	Anisotropic diffusion in confined colloidal dispersions: the evanescent diffusivity. *Journal of Chemical Physics*, **2011**, 135, 014701	3.9	15
33	The Importance of Unbound Ligand in Nanocrystal Superlattice Formation. *Journal of the American Chemical Society*, **2020**, 142, 9675-9685	16.4	14
32	Effect of Protein Surface Charge Distribution on Protein-Polyelectrolyte Complexation. *Biomacromolecules*, **2020**, 21, 3026-3037	6.9	14
31	On the viscosity of adhesive hard sphere dispersions: Critical scaling and the role of rigid contacts. *Journal of Rheology*, **2019**, 63, 229-245	4.1	13
30	Medium amplitude parallel superposition (MAPS) rheology. Part 1: Mathematical framework and theoretical examples. *Journal of Rheology*, **2020**, 64, 551-579	4.1	12
29	Phase Separation Kinetics of Dynamically Self-Assembling Nanoparticles with Toggled Interactions. *Langmuir*, **2018**, 34, 1029-1041	4	12
28	Colloidal Gelation through Thermally Triggered Surfactant Displacement. *Langmuir*, **2019**, 35, 9464-9473	4	12
27	Transmutable Colloidal Crystals and Active Phase Separation via Dynamic, Directed Self-Assembly with Toggled External Fields. *ACS Nano*, **2019**, 13, 764-771	16.7	12
26	Normal modes of weak colloidal gels. *Physical Review E*, **2018**, 97, 012608	2.4	11
25	Calibration of an optical tweezer microrheometer by sequential impulse response. *Rheologica Acta*, **2013**, 52, 455-465	2.3	10
24	Buckling, crumpling, and tumbling of semiflexible sheets in simple shear flow. *Soft Matter*, **2021**, 17, 4707-4718	3.6	10

23	Calculation of therapeutic antibody viscosity with coarse-grained models, hydrodynamic calculations and machine learning-based parameters. *MAbs*, **2021**, 13, 1907882	6.6	9
22	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,	9.1	8
21	Buckling instability of self-assembled colloidal columns. *Physical Review Letters*, **2014**, 113, 138301	7.4	7
20	Coarsening mechanics of a colloidal suspension in toggled fields. *Journal of Chemical Physics*, **2015**, 143, 074901	3.9	7
19	Modelling a hydrodynamic instability in freely settling colloidal gels. *Journal of Fluid Mechanics*, **2018**, 856, 1014-1044	3.7	7
18	Markov Chain Monte Carlo Sampling for Target Analysis of Transient Absorption Spectra. *Journal of Physical Chemistry A*, **2019**, 123, 3893-3902	2.8	5
17	Reversible Temperature-Induced Structural Transformations in PbS Nanocrystal Superlattices. *Journal of Physical Chemistry C*, **2020**, 124, 13456-13466	3.8	5
16	Thermal processing of thermogelling nanoemulsions as a route to tune material properties. *Soft Matter*, **2018**, 14, 5604-5614	3.6	5
15	Medium amplitude parallel superposition (MAPS) rheology. Part 2: Experimental protocols and data analysis. *Journal of Rheology*, **2020**, 64, 1263-1293	4.1	5
14	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	4	5
13	Evolution of structure and dynamics of thermo-reversible nanoparticle gels-A combined XPCS and rheology study. *Journal of Chemical Physics*, **2019**, 151, 104902	3.9	4
12	Measuring thermal rupture force distributions from an ensemble of trajectories. *Physical Review Letters*, **2012**, 109, 198302	7.4	4
11	Underscreening and hidden ion structures in large scale simulations of concentrated electrolytes. *Journal of Chemical Physics*, **2021**, 155, 134903	3.9	4
10	Shear driven vorticity aligned flocs in a suspension of attractive rigid rods. *Soft Matter*, **2021**, 17, 1232-1245	3.6	4
9	Spontaneous Electrokinetic Magnus Effect. *Physical Review Letters*, **2020**, 124, 208002	7.4	3
8	In situ measurement of localization error in particle tracking microrheology. *Rheologica Acta*, **2018**, 57, 793-800	2.3	2
7	Collective mode Brownian dynamics: A method for fast relaxation of statistical ensembles. *Journal of Chemical Physics*, **2020**, 152, 094104	3.9	1
6	Optical tweezer measurements of asymptotic nonlinearities in complex fluids.. *Physical Review E*, **2021**, 104, 064604	2.4	1

5	Thermally fluctuating, semiflexible sheets in simple shear flow.. *Soft Matter*, **2022**,	3.6	1
4	Optimal loading for injection. *AICHE Journal*, **2020**, 66, e17102	3.6	1
3	Repulsive, Densely Packed Ligand-Shells Mediate Interactions between PbS Nanocrystals in Solution. *Journal of Physical Chemistry C*, **2021**, 125, 8014-8020	3.8	1
2	Medium amplitude parallel superposition (MAPS) rheology of a wormlike micellar solution. *Rheologica Acta*, **2021**, 60, 729	2.3	0
1	The stress in a dispersion of mutually polarizable spheres. *Journal of Chemical Physics*, **2021**, 155, 014903	3.9	