Thomas G Mason

List of Publications by Year
in descending order

78 papers	4,434 citations	201385 27 h-index	102304 66 g-index
80 all docs	80 docs citations	80 times ranked	4704 citing authors

#	Article	IF	Citations
1	Estimating the viscoelastic moduli of complex fluids using the generalized Stokes-Einstein equation. Rheologica Acta, 2000, 39, 371-378.	1.1	613
2	Fluid Mechanics of Microrheology. Annual Review of Fluid Mechanics, 2010, 42, 413-438.	10.8	553
3	Capillary threads and viscous droplets in square microchannels. Physics of Fluids, 2008, 20, .	1.6	316
4	Shape-Controlled Colloidal Interactions in Nematic Liquid Crystals. Science, 2009, 326, 1083-1086.	6.0	289
5	Advanced Nanoemulsions. Annual Review of Physical Chemistry, 2012, 63, 493-518.	4.8	202
6	Diffusing Wave Spectroscopy Microrheology of Actin Filament Networks. Biophysical Journal, 1999, 76, 1063-1071.	0.2	187
7	Bio-Microrheology: A Frontier in Microrheology. Biophysical Journal, 2006, 91, 4296-4305.	0.2	173
8	Formation of Concentrated Nanoemulsions by Extreme Shear. Soft Materials, 2004, 2, 109-123.	0.8	171
9	Colloidal Alphabet Soup:â€‰ Monodisperse Dispersions of Shape-Designed LithoParticles. Journal of Physical Chemistry C, 2007, 111, 4477-4480.	1.5	160
10	Directing Colloidal Self-Assembly through Roughness-Controlled Depletion Attractions. Physical Review Letters, 2007, 99, 268301.	2.9	136
11	Entropic crystalâ€"crystal transitions of Brownian squares. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 2684-2687.	3.3	134
12	Rheology of attractive emulsions. Physical Review E, 2011, 84, 041404.	0.8	112
13	Advances and challenges in the rheology of concentrated emulsions and nanoemulsions. Advances in Colloid and Interface Science, 2017, 247, 397-412.	7.0	81
14	Curvature Dependence of Viral Protein Structures on Encapsidated Nanoemulsion Droplets. ACS Nano, 2008, 2, 281-286.	7.3	70
15	Local chiral symmetry breaking in triatic liquid crystals. Nature Communications, 2012, 3, 801.	5.8	67
16	Frustrated Rotator Crystals and Glasses of Brownian Pentagons. Physical Review Letters, 2009, 103, 208302.	2.9	61
17	The physical origins of transit time measurements for rapid, single cell mechanotyping. Lab on A Chip, 2016, 16, 3330-3339.	3.1	61
18	Irreversible shear-induced vitrification of droplets into elastic nanoemulsions by extreme rupturing. Physical Review E, 2007, 75, 041407.	0.8	59

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19	Assembly of colloidal particles in solution. Reports on Progress in Physics, 2018, 81, 126601.	8.1	51
20	Suppressing and Enhancing Depletion Attractions between Surfaces Roughened by Asperities. Physical Review Letters, 2008, 101, 148301.	2.9	44
21	Effective Structure Factor of Osmotically Deformed Nanoemulsionsâ€. Journal of Physical Chemistry B, 2006, 110, 22097-22102.	1.2	40
22	Shear-Induced Disruption of Dense Nanoemulsion Gels. Langmuir, 2011, 27, 5204-5210.	1.6	37
23	Shape-designed frustration by local polymorphism in a near-equilibrium colloidal glass. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 12063-12068.	3.3	36
24	Slippery diffusion-limited aggregation. Physical Review E, 2007, 75, 011406.	0.8	33
25	Twinning of Rhombic Colloidal Crystals. Journal of the American Chemical Society, 2012, 134, 18125-18131.	6.6	32
26	Time-Dependent Nanoemulsion Droplet Size Reduction By Evaporative Ripening. Journal of Physical Chemistry Letters, 2010, 1, 3349-3353.	2.1	30
27	Interacting viscous instabilities in microfluidic systems. Soft Matter, 2012, 8, 10573.	1.2	27
28	Effects of cytoskeletal disruption on transport, structure, and rheology within mammalian cells. Physics of Fluids, 2007, 19, 103102.	1.6	26
29	Mesoscale structure of diffusion-limited aggregates of colloidal rods and disks. Soft Matter, 2009, 5, 3639.	1.2	26
30	Crossover between entropic and interfacial elasticity and osmotic pressure in uniform disordered emulsions. Soft Matter, 2014, 10, 7109-7116.	1.2	26
31	Transmission of Visible and Ultraviolet Light through Charge-Stabilized Nanoemulsions. Journal of Physical Chemistry C, 2008, 112, 12669-12676.	1.5	25
32	The jamming elasticity of emulsions stabilized by ionic surfactants. Soft Matter, 2014, 10, 5040-5044.	1.2	25
33	A Brownian quasi-crystal of pre-assembled colloidal Penrose tiles. Nature, 2018, 561, 94-99.	13.7	24
34	Diffusing wave microrheology of highly scattering concentrated monodisperse emulsions. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 7766-7771.	3.3	23
35	Cerberus Nanoemulsions Produced by Multidroplet Flow-Induced Fusion. Langmuir, 2013, 29, 15787-15793.	1.6	22
36	Colloidal Lock-and-Key Dimerization Reactions of Hard Annular Sector Particles Controlled by Osmotic Pressure. Journal of the American Chemical Society, 2015, 137, 15308-15314.	6.6	22

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37	Self-limiting droplet fusion in ionic emulsions. Soft Matter, 2014, 10, 4662.	1.2	21
38	Simulations of complex particle transport in heterogeneous active liquids. Microfluidics and Nanofluidics, 2007, 3, 227-237.	1.0	20
39	Dynamical and structural signatures of the glass transition in emulsions. Journal of Statistical Mechanics: Theory and Experiment, 2016, 2016, 094003.	0.9	20
40	Nanoparticle size distributions measured by optical adaptive-deconvolution passivated-gel electrophoresis. Journal of Colloid and Interface Science, 2014, 435, 67-74.	5.0	19
41	Entropic, electrostatic, and interfacial regimes in concentrated disordered ionic emulsions. Rheologica Acta, 2016, 55, 683-697.	1.1	19
42	Emergent tetratic order in crowded systems of rotationally asymmetric hard kite particles. Nature Communications, 2020, 11, 2064.	5.8	19
43	Microscopic signatures of yielding in concentrated nanoemulsions under large-amplitude oscillatory shear. Physical Review Materials, 2018, 2, .	0.9	19
44	Long-wavelength fluctuations and anomalous dynamics in 2-dimensional liquids. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 22977-22982.	3.3	18
45	Tensorial generalized Stokesâ€"Einstein relation for anisotropic probe microrheology. Rheologica Acta, 2010, 49, 1165-1177.	1.1	17
46	Star colloids in nematic liquid crystals. Soft Matter, 2013, 9, 7843.	1.2	17
47	Optically probing nanoemulsion compositions. Physical Chemistry Chemical Physics, 2012, 14, 2455.	1.3	16
48	Structure of marginally jammed polydisperse packings of frictionless spheres. Physical Review E, 2015, 91, 032302.	0.8	16
49	Structure and Conductivity of Semiconducting Polymer Hydrogels. Journal of Physical Chemistry B, 2016, 120, 6215-6224.	1.2	14
50	Phase behavior of two-dimensional Brownian systems of corner-rounded hexagons. Physical Review Materials, 2019, 3, .	0.9	14
51	The liquid-glass-jamming transition in disordered ionic nanoemulsions. Scientific Reports, 2017, 7, 13879.	1.6	13
52	Deformation, restructuring, and un-jamming of concentrated droplets in large-amplitude oscillatory shear flows. Soft Matter, 2009, 5, 2208.	1.2	12
53	Three-dimensional imaging of a phase object from a single sample orientation using an optical laser. Physical Review B, 2011, 84, .	1.1	12
54	Self-organized chiral colloidal crystals of Brownian square crosses. Journal of Physics Condensed Matter, 2014, 26, 152101.	0.7	12

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55	Passivated gel electrophoresis of charged nanospheres by light-scattering video tracking. Journal of Colloid and Interface Science, 2014, 428, 199-207.	5.0	12
56	Random walks of colloidal probes in viscoelastic materials. Physical Review E, 2014, 89, 042309.	0.8	11
57	Separating nanoparticles by surface charge group using pH-controlled passivated gel electrophoresis. Soft Materials, 2016, 14, 204-209.	0.8	10
58	Band-collision gel electrophoresis. Nature Communications, 2019, 10, 3631.	5.8	10
59	Dimer crystallization of chiral proteoids. Physical Chemistry Chemical Physics, 2017, 19, 7167-7175.	1.3	8
60	Vibrational Modes and Dynamic Heterogeneity in a Near-Equilibrium 2D Glass of Colloidal Kites. Physical Review Letters, 2018, 121, 228003.	2.9	8
61	Entropic chiral symmetry breaking in self-organized two-dimensional colloidal crystals. Soft Matter, 2014, 10, 4471.	1.2	7
62	Lock-and-key dimerization in dense Brownian systems of hard annular sector particles. Physical Review E, 2016, 94, 022124.	0.8	7
63	Dynamics in two-dimensional glassy systems of crowded Penrose kites. Physical Review Materials, 2019, 3, .	0.9	7
64	Nanoinclusions in Cryogenically Quenched Nanoemulsions. Langmuir, 2012, 28, 12015-12021.	1.6	6
65	Influence of ionic constituents and electrical conductivity on the propagation of charged nanoscale objects in passivated gel electrophoresis. Electrophoresis, 2018, 39, 394-405.	1.3	6
66	Diffusing wave microrheology of strongly attractive dense emulsions. Physical Review E, 2020, 102, 062610.	0.8	6
67	Local collective motion analysis for multi-probe dynamic imaging and microrheology. Journal of Physics Condensed Matter, 2016, 28, 305201.	0.7	5
68	Surfactant Partitioning in Nanoemulsions. Langmuir, 2018, 34, 10309-10320.	1.6	5
69	Curvature-assisted self-assembly of Brownian squares on cylindrical surfaces. Journal of Colloid and Interface Science, 2022, 605, 863-870.	5.0	5
70	Treatment of Acidified Blood Using Reduced Osmolarity Mixed-Base Solutions. Frontiers in Physiology, 2016, 7, 625.	1.3	3
71	Propagation and Separation of Charged Colloids by Cylindrical Passivated Gel Electrophoresis. Journal of Physical Chemistry B, 2016, 120, 6160-6165.	1.2	3
72	Self-motion and heterogeneous droplet dynamics in moderately attractive dense emulsions. Journal of Physics Condensed Matter, 2021, 33, 175101.	0.7	2

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73	Brownian lithographic polymers of steric lock-and-key colloidal linkages. Science Advances, 2021, 7, eabg3678.	4.7	2
74	Depletion torques between anisotropic colloidal particles. Journal of Chemical Physics, 2021, 155, 144903.	1.2	2
75	Pillarâ€Deposition Particle Templating: A Highâ€Throughput Synthetic Route for Producing LithoParticles. Soft Materials, 2007, 5, 1-11.	0.8	1
76	Phase behavior of rotationally asymmetric Brownian kites containing 90Â° internal angles*. Chinese Physics B, 2021, 30, 124701.	0.7	1
77	Wellâ€Deposition Particle Templating: Rapid Massâ€Production of LithoParticles Without Mechanical Imprinting. Soft Materials, 2007, 5, 13-31.	0.8	0
78	Reply to â€œComment on â€˜Three-dimensional imaging of a phase object from a single sample orientation using an optical laserâ€™ â€• Physical Review B, 2012, 86, .	1.1	0