M Paul Lettinga

List of Publications by Year
in descending order

79	2,269	172457	233421
papers	citations	29 h-index	45 g-index

80	80	80	2175
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A sequence of physical processes determined and quantified in large-amplitude oscillatory shear (LAOS): Application to theoretical nonlinear models. Journal of Rheology, 2012, 56, 1-25.	2.6	153
2	Self-Diffusion of Rodlike Viruses through Smectic Layers. Physical Review Letters, 2007, 99, 197802.	7.8	83
3	Self-diffusion of rod-like viruses in the nematic phase. Europhysics Letters, 2005, 71, 692-698.	2.0	74
4	Many-Body Hydrodynamic Interactions in Charge-Stabilized Suspensions. Physical Review Letters, 2006, 96, 138303.	7.8	73
5	Attractive Colloidal Rods in Shear Flow. Physical Review Letters, 2008, 101, 168302.	7.8	71
6	Competition between Shear Banding and Wall Slip in Wormlike Micelles. Physical Review Letters, 2009, 103, 248302.	7.8	69
7	Flow Behavior of Colloidal Rodlike Viruses in the Nematic Phase. Langmuir, 2005, 21, 8048-8057.	3.5	66
8	Shear-banding and microstructure of colloids in shear flow. Faraday Discussions, 2003, 123, 157-172.	3.2	65
9	Shear banding and rheochaos in associative polymer networks. Soft Matter, 2008, 4, 1696.	2.7	62
10	Colloidal liquid crystals in rectangular confinement: theory and experiment. Soft Matter, 2014, 10, 7865-7873.	2.7	62
11	On the validity of Stokesâ€“Einsteinâ€“Debye relations for rotational diffusion in colloidal suspensions. Faraday Discussions, 2003, 123, 335-354.	3.2	60
12	Diffusion of spheres in crowded suspensions of rods. Journal of Chemical Physics, 2005, 122, 044905.	3.0	56
13	Phosphorescence and fluorescence characterization of fluorescein derivatives immobilized in various polymer matrices. Physical Chemistry Chemical Physics, 2000, 2, 3697-3707.	2.8	55
14	Vorticity banding in rodlike virus suspensions. Physical Review E, 2006, 74, 026307.	2.1	55
15	Non-equilibrium phase behaviour of rod-like viruses under shear flow. Journal of Physics Condensed Matter, 2004, 16, S3929-S3939.	1.8	54
16	The molecular origin of stress generation in worm-like micelles, using a rheo-SANS LAOS approach. Soft Matter, 2012, 8, 7831.	2.7	54
17	Thermodynamic Incompatibility and Complex Formation in Pectin/Caseinate Mixtures. Biomacromolecules, 2007, 8, 3345-3354.	5.4	53
18	Reversible Gelation of Rod-Like Viruses Grafted with Thermoresponsive Polymers. Langmuir, 2009, 25, 2437-2442.	3.5	47

#	Article	IF	Citations
19	Crystallization Kinetics of Colloidal Spheres under Stationary Shear Flow. Langmuir, 2005, 21, 10976-10982.	3.5	45
20	Structure and short-time dynamics in suspensions of charged silica spheres in the entire fluid regime. Journal of Chemical Physics, 2009, 130, 084503.	3.0	44
21	Confinement Induced Splay-to-Bend Transition of Colloidal Rods. Physical Review Letters, 2012, 109, 108303.	7.8	40
22	Probing structure in colloidal gels of thermoreversible rodlike virus particles: Rheology and scattering. Journal of Rheology, 2012, 56, 1153-1174.	2.6	37
23	Hydrodynamic interactions in rod suspensions with orientational ordering. Soft Matter, 2010, 6, 4556.	2.7	35
24	Dynamics in the smectic phase of stiff viral rods. Physical Review E, 2011, 84, 041704.	2.1	34
25	Phosphorescent Colloidal Silica Spheres as Tracers for Rotational Diffusion Studies. Langmuir, 2000, 16, 6156-6165.	3.5	33
26	Multiple Shear-Banding Transitions in a Supramolecular Polymer Solution. Physical Review Letters, 2006, 97, 108301.	7.8	33
27	Thermal Diffusion of a Stiff Rod-Like Mutant Y21M fd-Virus. Biomacromolecules, 2011, 12, 1602-1609.	5.4	33
28	Dynamical and structural insights into the smectic phase of rod-like particles. Journal of Physics Condensed Matter, 2008, 20, 494213.	1.8	31
29	Direct visualization of flow-induced conformational transitions of single actin filaments in entangled solutions. Nature Communications, 2014, 5, 5060.	12.8	30
30	Nematic-isotropic spinodal decomposition kinetics of rodlike viruses. Physical Review E, 2006, 73, 011412.	2.1	29
31	Crystal-to-Crystal Transition of Ultrasoft Colloids under Shear. Physical Review Letters, 2018, 120, 078003.	7.8	29
32	Microstructural Understanding of the Length- and Stiffness-Dependent Shear Thinning in Semidilute Colloidal Rods. Macromolecules, 2019, 52, 9604-9612.	4.8	29
33	Superposition rheology of shear-banding wormlike micelles. Journal of Rheology, 2007, 51, 1047-1072.	2.6	28
34	Collective diffusion in charge-stabilized suspensions: Concentration and salt effects. Journal of Chemical Physics, 2007, 126, 104905.	3.0	27
35	Nonlinear Behavior of Nematic Platelet Dispersions in Shear Flow. Physical Review Letters, 2012, 109, 246001.	7.8	27
36	Rotational dynamics of colloidal spheres probed with fluorescence recovery after photobleaching. Journal of Chemical Physics, 2004, 120, 4517-4529.	3.0	25

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37	Dynamic response of block copolymer wormlike micelles to shear flow. Journal of Physics Condensed Matter, 2008, 20, 404207.	1.8	25
38	Connecting structure, dynamics and viscosity in sheared soft colloidal liquids: a medley of anisotropic fluctuations. Soft Matter, 2016, 12, 171-180.	2.7	25
39	Rotational Diffusion of Tracer Spheres in Packings and Dispersions of Colloidal Spheres Studied with Time-Resolved Phosphorescence Anisotropy. Langmuir, 2000, 16, 6166-6172.	3.5	24
40	Kinetic pathways of the nematicâ€“isotropic phase transition as studied by confocal microscopy on rod-like viruses. Journal of Physics Condensed Matter, 2005, 17, S3609-S3618.	1.8	23
41	Effects of particle stiffness on the extensional rheology of model rod-like nanoparticle suspensions. Soft Matter, 2019, 15, 833-841.	2.7	21
42	Is vorticity-banding due to an elastic instability?. Rheologica Acta, 2008, 47, 499-508.	2.4	20
43	Dynamics of liquid-liquid phase separation of wheat gliadins. Scientific Reports, 2018, 8, 14441.	3.3	19
44	Fast Diffusion of Long Guest Rods in a Lamellar Phase of Short Host Particles. Physical Review Letters, 2017, 118, 178002.	7.8	18
45	Rotational tracer diffusion in binary colloidal sphere mixtures. Physical Review E, 2001, 64, 022401.	2.1	17
46	Full Characterization of PBâ^'PEO Wormlike Micelles at Varying Solvent Selectivity. Macromolecules, 2011, 44, 3583-3593.	4.8	17
47	Fractional Hoppinglike Motion in Columnar Mesophases of Semiflexible Rodlike Particles. Physical Review Letters, 2013, 111, 037801.	7.8	17
48	Colloidal dispersions of octadecyl grafted silica spheres in toluene: A global analysis of small angle neutron scattering contrast variation and concentration dependence measurements. Journal of Chemical Physics, 2006, 125, 044715.	3.0	16
49	Structure and phase diagram of an adhesive colloidal dispersion under high pressure: A small angle neutron scattering, diffusing wave spectroscopy, and light scattering study. Journal of Chemical Physics, 2009, 130, 154903.	3.0	16
50	The Connection between Biaxial Orientation and Shear Thinning for Quasi-Ideal Rods. Polymers, 2016, 8, 291.	4.5	16
51	Colloidal Liquid Crystals Confined to Synthetic Tactoids. Scientific Reports, 2019, 9, 20391.	3.3	16
52	Dispersions and mixtures of particles with complex architectures in shear flow. European Physical Journal: Special Topics, 2013, 222, 2739-2755.	2.6	14
53	Shear Flow Behavior of Bidisperse Rodlike Colloids. Macromolecules, 2020, 53, 2662-2668.	4.8	13
54	Multiscale Characterization of the Mechanical Properties of Fibrin and Polyethylene Glycol (PEG) Hydrogels for Tissue Engineering Applications. Macromolecular Chemistry and Physics, 2022, 223, 2100366.	2.2	13

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55	Shear-banding in entangled xanthan solutions: tunable transition from sharp to broad shear-band interfaces. Soft Matter, 2018, 14, 826-836.	2.7	11
56	Sedimentation of large particles in a suspension of colloidal rods. Physics of Fluids, 2020, 32, .	4.0	11
57	Microstructural response of a near-critical colloid-polymer mixture to shear flow. Physical Review E, 2004, 70, 061405.	2.1	10
58	Phase stability of colloidal mixtures of spheres and rods. Journal of Chemical Physics, 2021, 154, 204906.	3.0	10
59	SANS and dynamic light scattering to investigate the viscosity of toluene under high pressure up to 1800 bar. Measurement Science and Technology, 2008, 19, 034017.	2.6	9
60	Depletion induced clustering in mixtures of colloidal spheres andfd-virus. Journal of Physics Condensed Matter, 2012, 24, 464101.	1.8	9
61	X-ray scattering in the vorticity direction and rheometry from confined fluids. Review of Scientific Instruments, 2014, 85, 065108.	1.3	8
62	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
63	The Orientation of the Phosphorescence Dipole Moment of Erythrosine B Within Its Molecular Frame. Journal of Fluorescence, 1999, 9, 265-279.	2.5	7
64	Supersaturated dispersions of rodlike viruses with added attraction. Physical Review E, 2009, 80, 031402.	2.1	6
65	Effect of the salt-induced micellar microstructure on the nonlinear shear flow behavior of ionic cetylpyridinium chloride surfactant solutions. Physical Review E, 2017, 95, 032603.	2.1	6
66	Capillary nematisation of colloidal rods in confinement. Molecular Physics, 2018, 116, 2864-2871.	1.7	6
67	Interplay between a hydrodynamic instability and a phase transition: the Faraday instability in dispersions of rodlike colloids. Soft Matter, 2011, 7, 11440.	2.7	5
68	When bigger is faster: A self-Van Hove analysis of the enhanced self-diffusion of non-commensurate guest particles in smectics. Journal of Chemical Physics, 2021, 154, 204901.	3.0	5
69	Stress-controlled shear flow alignment of collagen type I hydrogel systems. Acta Biomaterialia, 2022, 150, 128-137.	8.3	5
70	Anomalous structural response of nematic colloidal platelets subjected to large amplitude stress oscillations. Physics of Fluids, 2017, 29, 023102.	4.0	4
71	Probing nonlinear velocity profiles of shear-thinning, nematic platelet dispersions in Couette flow using x-ray photon correlation spectroscopy. Physics of Fluids, 2021, 33, 063102.	4.0	4
72	Synchronized, Spontaneous, and Oscillatory Detachment of Eukaryotic Cells: A New Tool for Cell Characterization and Identification. Advanced Science, 2022, 9, .	11.2	4

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73	A quest for shear banding in ideal and non ideal colloidal rods. Journal Physics D: Applied Physics, 2019, 52, 074003.	2.8	3
74	Uncovering Log Jamming in Semidilute Suspensions of Quasi-Ideal Rods. Macromolecules, 2021, 54, 9609-9617.	4.8	3
75	Competition Between Red Blood Cell Aggregation and Breakup: Depletion Force due to Filamentous Viruses vs. Shear Flow. Frontiers in Physics, 2021, 9, .	2.1	2
76	Nano-viscosity of supercooled liquid measured by fluorescence correlation spectroscopy: Pressure and temperature dependence and the density scaling. Journal of Chemical Physics, 2018, 148, 094201.	3.0	1
77	Anomalous dynamic response of nematic platelets studied by spatially resolved rheo-small angle x-ray scattering in the 1â€“2 plane. Physics of Fluids, 2021, 33, .	4.0	1
78	Suppressed twist in droplets of cholesteric rod-like virus as identified by single particle imaging. Liquid Crystals, 2021, 48, 746-755.	2.2	0
79	10.1063/5.0069458.1. , 2021, , .		0