Xiang Cheng

List of Publications by Year
in descending order

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Version: 2024-02-01

48	1,887	304602	254106
papers	citations	22 h-index	43 g-index

50	50	50	2142
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Drop Impact Dynamics: Impact Force and Stress Distributions. Annual Review of Fluid Mechanics, 2022, 54, 57-81.	10.8	51
2	The colloidal nature of complex fluids enhances bacterial motility. Nature, 2022, 603, 819-823.	13.7	33
3	Stress distribution and surface shock wave of drop impact. Nature Communications, 2022, 13, 1703.	5.8	22
4	Tuning the rheology and microstructure of particle-laden fluid interfaces with Janus particles. Journal of Colloid and Interface Science, 2022, 618, 241-247.	5.0	12
5	To cross or not to cross: Collective swimming of Escherichia coli under two-dimensional confinement. Physical Review Research, 2022, 4, .	1.3	5
6	Degradation and Breakdown of Polymer/Graphene Composites under Strong Electric Field. Journal of Composites Science, 2022, 6, 139.	1.4	1
7	Crack patterns of drying dense bacterial suspensions. Soft Matter, 2022, 18, 5239-5248.	1.2	2
8	Imaging the emergence of bacterial turbulence: Phase diagram and transition kinetics. Science Advances, 2021, 7, .	4.7	28
9	Dynamics of DNA-Bridged Dumbbells in Concentrated, Shear-Banding Polymer Solutions. Macromolecules, 2021, 54, 4186-4197.	2.2	3
10	Robust networks of interfacial localized graphene in cocontinuous polymer blends. Journal of Rheology, 2021, 65, 1139-1153.	1.3	12
11	Miniature magnetic rod interfacial stress rheometer for general-purpose microscopes. Journal of Rheology, 2021, 65, 1103-1110.	1.3	4
12	Density fluctuations and energy spectra of 3D bacterial suspensions. Soft Matter, 2021, 17, 10806-10817.	1.2	11
13	Dependency of active pressure and equation of state on stiffness of wall. Scientific Reports, 2021, 11, 22204.	1.6	4
14	Explosion cratering in 3D granular media. Soft Matter, 2020, 16, 1323-1332.	1.2	3
15	Rheology of bacterial suspensions under confinement. Rheologica Acta, 2019, 58, 439-451.	1.1	27
16	Polymer/Graphene Composites via Spinodal Decomposition of Miscible Polymer Blends. Macromolecules, 2019, 52, 7625-7637.	2.2	28
17	Long-wavelength fluctuations and static correlations in quasi-2D colloidal suspensions. Soft Matter, 2019, 15, 4087-4097.	1.2	6
18	Supercapacitive Strain Sensor With Ultrahigh Sensitivity and Range. , 2019, 3, 1-4.		4

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19	Dynamics of drop impact on solid surfaces: evolution of impact force and self-similar spreading. Journal of Fluid Mechanics, 2018, 840, 190-214.	1.4	55
20	Dynamics and scaling of explosion cratering in granular media. AICHE Journal, 2018, 64, 2972-2981.	1.8	6
21	Kinetic Control of Graphene Localization in Co-continuous Polymer Blends via Melt Compounding. Langmuir, 2018, 34, 1073-1083.	1.6	74
22	Paper-Based Supercapacitive Mechanical Sensors. Scientific Reports, 2018, 8, 16284.	1.6	20
23	Effect of edge disturbance on shear banding in polymeric solutions. Journal of Rheology, 2018, 62, 1339-1345.	1.3	6
24	Symmetric shear banding and swarming vortices in bacterial superfluids. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 7212-7217.	3.3	43
25	Dynamic self-assembly of charged colloidal strings and walls in simple fluid flows. Soft Matter, 2017, 13, 1681-1692.	1.2	9
26	Localizing graphene at the interface of cocontinuous polymer blends: Morphology, rheology, and conductivity of cocontinuous conductive polymer composites. Journal of Rheology, 2017, 61, 575-587.	1.3	107
27	Drying of multicomponent thin films on substrates with topography. Journal of Polymer Science, Part B: Polymer Physics, 2017, 55, 1681-1691.	2.4	18
28	Shear-banding and superdiffusivity in entangled polymer solutions. Physical Review E, 2017, 96, 062503.	0.8	14
29	Dynamics of ellipsoidal tracers in swimming algal suspensions. Physical Review E, 2016, 94, 042601.	0.8	16
30	Controlling the Morphology of Immiscible Cocontinuous Polymer Blends via Silica Nanoparticles Jammed at the Interface. Macromolecules, 2016, 49, 3911-3918.	2.2	85
31	Structures and Dynamics of Glass-Forming Colloidal Liquids under Spherical Confinement. Physical Review Letters, 2016, 116, 098302.	2.9	29
32	Diffusion of Ellipsoids in Bacterial Suspensions. Physical Review Letters, 2016, 116, 068303.	2.9	83
33	Scaling of liquid-drop impact craters in wet granular media. Physical Review E, 2015, 92, 042205.	0.8	17
34	Dynamics and rheology of nonpolar bijels. Soft Matter, 2015, 11, 5282-5293.	1.2	75
35	Granular impact cratering by liquid drops: Understanding raindrop imprints through an analogy to asteroid strikes. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 342-347.	3.3	64
36	Impact dynamics of granular jets with noncircular cross sections. Physical Review E, 2014, 89, 042201.	0.8	17

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37	A multi-axis confocal rheoscope for studying shear flow of structured fluids. Review of Scientific Instruments, 2014, 85, 033905.	0.6	36
38	Biaxial shear of confined colloidal hard spheres: the structure and rheology of the vorticity-aligned string phase. Soft Matter, 2014, 10, 1969.	1.2	17
39	Enhancing Rotational Diffusion Using Oscillatory Shear. Physical Review Letters, 2013, 110, 228301.	2.9	16
40	Far-from-equilibrium sheared colloidal liquids: Disentangling relaxation, advection, and shear-induced diffusion. Physical Review E, 2013, 88, 062309.	0.8	17
41	Assembly of vorticity-aligned hard-sphere colloidal strings in a simple shear flow. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 63-67.	3.3	72
42	Imaging the Microscopic Structure of Shear Thinning and Thickening Colloidal Suspensions. Science, 2011, 333, 1276-1279.	6.0	414
43	Experimental study of the jamming transition at zero temperature. Physical Review E, 2010, 81, 031301.	0.8	45
44	Packing structure of a two-dimensional granular system through the jamming transition. Soft Matter, 2010, 6, 2931.	1.2	11
45	Towards the zero-surface-tension limit in granular fingering instability. Nature Physics, 2008, 4, 234-237.	6.5	106
46	Formation of air bubbles during compaction of a granular pack. Physics of Fluids, 2008, 20, .	1.6	5
47	Collective Behavior in a Granular Jet: Emergence of a Liquid with Zero Surface Tension. Physical Review Letters, 2007, 99, 188001.	2.9	71
48	Three-Dimensional Shear in Granular Flow. Physical Review Letters, 2006, 96, 038001.	2.9	78