Lei Xu

List of Publications by Year
in descending order

25 papers	1,985 citations	516710 16 h-index	580821 25 g-index
25 all docs	25 docs citations	25 times ranked	2114 citing authors

#	Article	IF	Citations
1	Drop Splashing on a Dry Smooth Surface. Physical Review Letters, 2005, 94, 184505.	7.8	553
2	Superhydrophobic-like tunable droplet bouncing on slippery liquid interfaces. Nature Communications, 2015, 6, 7986.	12.8	229
3	Visualizing kinetic pathways of homogeneous nucleation in colloidal crystallization. Nature Physics, 2014, 10, 73-79.	16.7	205
4	Liquid drop splashing on smooth, rough, and textured surfaces. Physical Review E, 2007, 75, 056316.	2.1	179
5	Splashing of liquids: Interplay of surface roughness with surrounding gas. Physical Review E, 2007, 76, 066311.	2.1	113
6	Towards the zero-surface-tension limit in granular fingering instability. Nature Physics, 2008, 4, 234-237.	16.7	106
7	Kelvinâ€“Helmholtz instability in an ultrathin air film causes drop splashing on smooth surfaces. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 3280-3284.	7.1	103
8	Dynamics of Drying in 3D Porous Media. Physical Review Letters, 2008, 101, 094502.	7.8	95
9	Hierarchical Porous Materials Made by Drying Complex Suspensions. Langmuir, 2011, 27, 955-964.	3.5	55
10	Compressible air entrapment in high-speed drop impacts on solid surfaces. Journal of Fluid Mechanics, 2013, 716, .	3.4	52
11	Understanding the Low-Frequency Quasilocalized Modes in Disordered Colloidal Systems. Physical Review Letters, 2012, 108, 095501.	7.8	43
12	Application of Microfluidics in Wearable Devices. Small Methods, 2019, 3, 1900688.	8.6	37
13	Fast crystal growth at ultra-low temperatures. Nature Materials, 2021, 20, 1431-1439.	27.5	36
14	The role of drop shape in impact and splash. Nature Communications, 2021, 12, 3068.	12.8	35
15	Diffusion-Dominated Pinch-Off of Ultralow Surface Tension Fluids. Physical Review Letters, 2019, 123, 134501.	7.8	22
16	Drying of Complex Suspensions. Physical Review Letters, 2010, 104, 128303.	7.8	18
17	Mechanism of Contact between a Droplet and an Atomically Smooth Substrate. Physical Review X, 2017, 7, .	8.9	17
18	Eliminating cracking during drying. European Physical Journal E, 2013, 36, 28.	1.6	15

#	Article	IF	Citations
19	Instability development of a viscous liquid drop impacting a smooth substrate. Physical Review E, 2010, 82, 025303.	2.1	14
20	Probing the Role of Mobility in the Collective Motion of Nonequilibrium Systems. Physical Review Letters, 2016, 116, 048302.	7.8	14
21	Emergence of Droplets at the Nonequilibrium All-Aqueous Interface in a Vertical Hele-Shaw Cell. Langmuir, 2018, 34, 3030-3036.	3.5	14
22	Achieving adjustable elasticity with non-affine to affine transition. Nature Materials, 2021, 20, 1635-1642.	27.5	9
23	Xu, Zhang, and Nagel Reply:. Physical Review Letters, 2006, 96, .	7.8	7
24	A universal state and its relaxation mechanisms of long-range interacting polygons. Nature Communications, 2019, 10, 1737.	12.8	7
25	Diatomite Modified with an Alkyl Ketene Dimer for Hydrophobicity of Cellulosic Paper. ACS Omega, 2022, 7, 20129-20136.	3.5	7