Jure Dobnikar

List of Publications by Year
in descending order

60 papers	1,916 citations	279798 23 h-index	265206 42 g-index
62 all docs	62 docs citations	62 times ranked	2342 citing authors

#	Article	IF	Citations
1	The Lennard-Jones potential: when (not) to use it. Physical Chemistry Chemical Physics, 2020, 22, 10624-10633.	2.8	133
2	Field-Induced Self-Assembly of Suspended Colloidal Membranes. Physical Review Letters, 2009, 103, 228301.	7.8	127
3	Direct Measurement of Three-Body Interactions amongst Charged Colloids. Physical Review Letters, 2004, 92, 078301.	7.8	110
4	The crucial effect of early-stage gelation on the mechanical properties of cement hydrates. Nature Communications, 2016, 7, 12106.	12.8	109
5	Emergent colloidal dynamics in electromagnetic fields. Soft Matter, 2013, 9, 3693.	2.7	100
6	Observation of Condensed Phases of Quasiplanar Core-Softened Colloids. Physical Review Letters, 2007, 99, 248301.	7.8	98
7	E. coli Superdiffusion and Chemotaxisâ€"Search Strategy, Precision, and Motility. Biophysical Journal, 2009, 97, 946-957.	0.5	85
8	Liquid-crystalline ordering of antimicrobial peptideâ€"DNA complexes controls TLR9 activation. Nature Materials, 2015, 14, 696-700.	27.5	75
9	Optimal multivalent targeting of membranes with many distinct receptors. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 7210-7215.	7.1	71
10	Testing the relevance of effective interaction potentials between highly-charged colloids in suspension. New Journal of Physics, 2006, 8, 277-277.	2.9	54
11	Many-body interactions and the melting of colloidal crystals. Journal of Chemical Physics, 2003, 119, 4971-4985.	3.0	53
12	Three-body interactions in colloidal systems. Physical Review E, 2004, 69, 031402.	2.1	51
13	Pattern Formation and Coarse-Graining in Two-Dimensional Colloids Driven by Multiaxial Magnetic Fields. Langmuir, 2014, 30, 5088-5096.	3.5	50
14	Counterion-mediated electrostatic interactions between helical molecules. Soft Matter, 2009, 5, 868-877.	2.7	46
15	On the Origin and Characteristics of Noise-Induced LÃ©vy Walks of E. Coli. PLoS ONE, 2011, 6, e18623.	2.5	45
16	Rational design of molecularly imprinted polymers. Soft Matter, 2016, 12, 35-44.	2.7	44
17	Nanoparticle Organization in Sandwiched Polymer Brushes. Nano Letters, 2014, 14, 2617-2622.	9.1	37
18	Membrane potential drives direct translocation of cell-penetrating peptides. Nanoscale, 2019, 11, 1949-1958.	5.6	36

#	Article	IF	Citations
19	Spontaneous Wenzel to Cassie dewetting transition on structured surfaces. Physical Review Fluids, 2016, 1, .	2.5	36
20	Predicting DNA-mediated colloidal pair interactions. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, E378-9; author reply E380.	7.1	30
21	Crystallinity of Double-Stranded RNA-Antimicrobial Peptide Complexes Modulates Toll-Like Receptor 3-Mediated Inflammation. ACS Nano, 2017, 11, 12145-12155.	14.6	30
22	Effect of many-body interactions on the solid-liquid phase behavior of charge-stabilized colloidal suspensions. Europhysics Letters, 2003, 61, 695-701.	2.0	29
23	New universal aspects of diffusion in strongly chaotic systems. Journal of Physics A, 1997, 30, L803-L813.	1.6	24
24	Ground states of colloidal molecular crystals on periodic substrates. Soft Matter, 2008, 4, 1491.	2.7	23
25	Dynamic Assembly of Magnetic Colloidal Vortices. Langmuir, 2016, 32, 5094-5101.	3.5	23
26	Ground states of model core-softened colloids. Journal of Physics Condensed Matter, 2008, 20, 494220.	1.8	21
27	Poissonâ€“Boltzmann Brownian dynamics of charged colloids in suspension. Computer Physics Communications, 2004, 159, 73-92.	7.5	20
28	Assembly of Superparamagnetic Filaments in External Field. Langmuir, 2016, 32, 9321-9328.	3.5	20
29	Collective ordering of colloids in grafted polymer layers. Soft Matter, 2013, 9, 5565.	2.7	19
30	Controlling Cargo Trafficking in Multicomponent Membranes. Nano Letters, 2018, 18, 5350-5356.	9.1	19
31	Layering, freezing, and re-entrant melting of hard spheres in soft confinement. Physical Review E, 2012, 85, 021502.	2.1	18
32	A review of immune amplification via ligand clustering by self-assembled liquidâ€“crystalline DNA complexes. Advances in Colloid and Interface Science, 2016, 232, 17-24.	14.7	18
33	Spontaneous Domain Formation in Spherically Confined Elastic Filaments. Physical Review Letters, 2019, 123, 047801.	7.8	17
34	Phonon dispersion curves of two-dimensional colloidal crystals: the wavelength-dependence of friction. Soft Matter, 2008, 4, 2199.	2.7	16
35	Chemotactic Sensing towards Ambient and Secreted Attractant Drives Collective Behaviour of E. coli. PLoS ONE, 2013, 8, e74878.	2.5	16
36	Computational design of probes to detect bacterial genomes by multivalent binding. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 8719-8726.	7.1	14

#	Article	IF	Citations
37	Designing stimulus-sensitive colloidal walkers. Soft Matter, 2014, 10, 3463-3470.	2.7	13
38	Emergence of complex behavior in pili-based motility in early stages of P. aeruginosa surface adaptation. Scientific Reports, 2017, 7, 45467.	3.3	13
39	What experiments on pinned nanobubbles can tell about the critical nucleus for bubble nucleation. European Physical Journal E, 2017, 40, 114.	1.6	13
40	Particle-stabilized Janus emulsions that exhibit pH-tunable stability. Chemical Communications, 2019, 55, 5773-5776.	4.1	11
41	Pseudo-Casimir force in confined nematic polymers. Europhysics Letters, 2001, 53, 735-741.	2.0	9
42	Effect of Topographical Steps on the Surface Motility of the Bacterium <i>Pseudomonas aeruginosa</i>. ACS Biomaterials Science and Engineering, 2019, 5, 6436-6445.	5.2	9
43	Controlling the morphological evolution of a particle-stabilized binary-component system. Chemical Communications, 2019, 55, 5575-5578.	4.1	9
44	Colloidal ionic complexes on periodic substrates: Ground-state configurations and pattern switching. Physical Review E, 2011, 83, 041403.	2.1	8
45	Two-dimensional magnetic colloids under shear. Soft Matter, 2016, 12, 3142-3148.	2.7	7
46	Bonding interactions between ligand-decorated colloidal particles. Molecular Physics, 2018, 116, 3392-3400.	1.7	7
47	The Effect of Attractive Interactions and Macromolecular Crowding on Crystallins Association. PLoS ONE, 2016, 11, e0151159.	2.5	7
48	Small Obstacle in a Large Polar Flock. Physical Review Letters, 2022, 128, .	7.8	7
49	Energy level statistics in the transition regime between integrability and chaos for systems without an anti-unitary symmetry. Journal of Physics A, 1999, 32, 1427-1438.	1.6	6
50	Research progress of bicontinuous interfacially jammed emulsion gel (Bijel). Wuli Xuebao/Acta Physica Sinica, 2018, 67, 144701.	0.5	6
51	Casimir and pseudo-Casimir interactions in confined polyelectrolytes. Journal of Chemical Physics, 2001, 115, 1951-1959.	3.0	5
52	Active microrheology in two-dimensional magnetic networks. Soft Matter, 2019, 15, 4437-4444.	2.7	5
53	Effect of the interaction strength and anisotropy on the diffusio-phoresis of spherical colloids. Soft Matter, 2020, 16, 3621-3627.	2.7	4
54	Dimeric and dipolar ground state orders in colloidal molecular crystals. Anais Da Academia Brasileira De Ciencias, 2010, 82, 87-94.	0.8	3

#	Article	IF	Citations
55	Coarse Graining Escherichia coli Chemotaxis: From Multi-flagella Propulsion to Logarithmic Sensing. Advances in Experimental Medicine and Biology, 2012, 736, 381-396.	1.6	3
56	Dynamic Assembly of Magnetic Nanocolloids. Frontiers of Nanoscience, 2019, 13, 23-36.	0.6	2
57	Multi-component random model of diffusion in chaotic systems. Journal of Physics A, 1999, 32, 1147-1162.	1.6	1
58	Three- and four-body interactions in colloidal systems. , 2004, , .		1
59	Phase behaviour of colloidal assemblies on 2D corrugated substrates. Journal of Physics Condensed Matter, 2012, 24, 284118.	1.8	1
60	Effect of social distancing on super-spreading diseases: why pandemics modelling is more challenging than molecular simulation. Molecular Physics, 0, , e1936247.	1.7	1