Ran Ni

List of Publications by Year
in descending order

54 papers	2,104 citations	346980 22 h-index	263392 45 g-index
56 all docs	56 docs citations	56 times ranked	2857 citing authors

#	Article	IF	Citations
1	Dynamical clustering interrupts motility-induced phase separation in chiral active Brownian particles. Journal of Chemical Physics, 2022, 156, 021102.	1.2	19
2	Mismatched ligand density enables ordered assembly of mixed-dimensional, cross-species materials. Science Advances, 2022, 8, .	4.7	3
3	Interplay between jamming and motility-induced phase separation in persistent self-propelling particles. Physical Review E, 2022, 106, .	0.8	3
4	Translational and rotational critical-like behaviors in the glass transition of colloidal ellipsoid monolayers. Science Advances, 2021, 7, .	4.7	12
5	Unconventional rheological properties in systems of deformable particles. Soft Matter, 2021, 17, 7708-7713.	1.2	2
6	Barrier-controlled nonequilibrium criticality in reactive particle systems. Physical Review E, 2021, 103, 052607.	0.8	1
7	Self-Assembly of Isostatic Self-Dual Colloidal Crystals. Physical Review Letters, 2021, 127, 018001.	2.9	10
8	Entropy-controlled cross-linking in linker-mediated vitrimers. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 27111-27115.	3.3	19
9	Upconversion luminescenceâ€“infrared absorption nanoprobes for the detection of prostate-specific antigen. Mikrochimica Acta, 2020, 187, 516.	2.5	7
10	Supercrystallographic Reconstruction of 3D Nanorod Assembly with Collectively Anisotropic Upconversion Fluorescence. Nano Letters, 2020, 20, 7367-7374.	4.5	17
11	Hierarchical glass transition of hard hemidisks with local assemblies. Soft Matter, 2020, 16, 8108-8113.	1.2	2
12	Effect of particle size distribution on polydisperse hard disks. Journal of Chemical Physics, 2020, 153, 174501.	1.2	4
13	Frictional active Brownian particles. Physical Review E, 2020, 102, 032612.	0.8	4
14	Linker-mediated self-assembly of mobile DNA-coated colloids. Science Advances, 2020, 6, eaaz6921.	4.7	20
15	Dynamic Assembly of Active Colloids: Theory and Simulation. Advanced Theory and Simulations, 2020, 3, 2000021.	1.3	25
16	Effect of heavy impurities on the dynamics of supercooled liquids. Journal of Chemical Physics, 2020, 152, 234502.	1.2	0
17	Thermalâ€Disrupting Interface Mitigates Intercellular Cohesion Loss for Accurate Topical Antibacterial Therapy. Advanced Materials, 2020, 32, e1907030.	11.1	75
18	Hexatic phase in a model of active biological tissues. Soft Matter, 2020, 16, 3914-3920.	1.2	26

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19	Mechanical Tolerance of Cascade Bioreactions via Adaptive Curvature Engineering for Epidermal Bioelectronics. Advanced Materials, 2020, 32, e2000991.	11.1	17
20	Stability phase diagram of active Brownian particles. Physical Review Research, 2020, 2, .	1.3	17
21	Melting and re-entrant melting of polydisperse hard disks. Communications Physics, 2019, 2, .	2.0	15
22	Hydrodynamics of random-organizing hyperuniform fluids. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 22983-22989.	3.3	45
23	Nonequilibrium strongly hyperuniform fluids of circle active particles with large local density fluctuations. Science Advances, 2019, 5, eaau7423.	4.7	81
24	Self-assembled multi-layer simple cubic photonic crystals of oppositely charged colloids in confinement. Soft Matter, 2019, 15, 3104-3110.	1.2	6
25	Entropy Stabilizes Floppy Crystals of Mobile DNA-Coated Colloids. Physical Review Letters, 2018, 120, 048003.	2.9	19
26	Self-Assembled Chiral Photonic Crystals from a Colloidal Helix Racemate. ACS Nano, 2018, 12, 6860-6870.	7.3	22
27	Selfâ€Assembly of Semiconducting Polymer Amphiphiles for In Vivo Photoacoustic Imaging. Advanced Functional Materials, 2017, 27, 1605397.	7.8	118
28	Photoacoustic Imaging: Selfâ€Assembly of Semiconducting Polymer Amphiphiles for In Vivo Photoacoustic Imaging (Adv. Funct. Mater. 8/2017). Advanced Functional Materials, 2017, 27, .	7.8	2
29	Complexation of Polyelectrolytes with Hydrophobic Drug Molecules in Salt-Free Solution: Theory and Simulations. Langmuir, 2017, 33, 3900-3909.	1.6	10
30	Driving dynamic colloidal assembly using eccentric self-propelled colloids. Soft Matter, 2017, 13, 8940-8946.	1.2	32
31	Dual-mode immunoassay based on shape code and infrared absorption fingerprint signals of silica nanorods. Analytical and Bioanalytical Chemistry, 2017, 409, 4207-4213.	1.9	4
32	Role of local assembly in the hierarchical crystallization of associating colloidal hard hemispheres. Physical Review Materials, 2017, 1, .	0.9	3
33	Modes of surface premelting in colloidal crystals composed of attractive particles. Nature, 2016, 531, 485-488.	13.7	69
34	Tunable Long Range Forces Mediated by Self-Propelled Colloidal Hard Spheres. Physical Review Letters, 2015, 114, 018302.	2.9	130
35	Competition between surface adsorption and folding of fibril-forming polypeptides. Physical Review E, 2015, 91, 022711.	0.8	7
36	Crystallizing hard-sphere glasses by doping with active particles. Soft Matter, 2014, 10, 6609-6613.	1.2	63

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37	Structural signatures of dynamic heterogeneities in monolayers of colloidal ellipsoids. Nature Communications, 2014, 5, 3829.	5.8	88
38	Interplay between Folding and Assembly of Fibril-Forming Polypeptides. Physical Review Letters, 2013, 111, 058101.	2.9	30
39	Effect of bond length fluctuations on crystal nucleation of hard bead chains. Soft Matter, 2013, 9, 365-369.	1.2	26
40	Pushing the glass transition towards random close packing using self-propelled hard spheres. Nature Communications, 2013, 4, 2704.	5.8	148
41	Surface roughness directed self-assembly of patchy particles into colloidal micelles. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 10787-10792.	3.3	317
42	Phase diagram of colloidal hard superballs: from cubes via spheres to octahedra. Soft Matter, 2012, 8, 8826.	1.2	148
43	Crystal nucleation in binary hard-sphere mixtures: the effect of order parameter on the cluster composition. Molecular Physics, 2011, 109, 1213-1227.	0.8	12
44	Crystal nucleation of colloidal hard dumbbells. Journal of Chemical Physics, 2011, 134, 034501.	1.2	25
45	Simulation of nucleation in almost hard-sphere colloids: The discrepancy between experiment and simulation persists. Journal of Chemical Physics, 2011, 134, 134901.	1.2	82
46	Self-Assembly of a Colloidal Interstitial Solid with Tunable Sublattice Doping. Physical Review Letters, 2011, 107, 168302.	2.9	33
47	Crystal nucleation of hard spheres using molecular dynamics, umbrella sampling, and forward flux sampling: A comparison of simulation techniques. Journal of Chemical Physics, 2010, 133, 244115.	1.2	165
48	Glassy Dynamics, Spinodal Fluctuations, and the Kinetic Limit of Nucleation in Suspensions of Colloidal Hard Rods. Physical Review Letters, 2010, 105, 088302.	2.9	44
49	Release of Lysozyme from the Branched Polyelectrolyteâ^'Lysozyme Complexation. Journal of Physical Chemistry B, 2008, 112, 4393-4400.	1.2	13
50	Polyelectrolyteâ^'Macroion Complexation in 1:1 and 3:1 Salt Contents: A Brownian Dynamics Study. Journal of Physical Chemistry B, 2008, 112, 16505-16516.	1.2	3
51	Conformation of a Spherical Polyelectrolyte Brush in the Presence of Oppositely Charged Linear Polyelectrolytes. Macromolecules, 2008, 41, 5477-5484.	2.2	39
52	Effect of the Bridging Conformation of Polyelectrolytes on the Static and Dynamic Behavior of Macroions. Langmuir, 2008, 24, 10138-10144.	1.6	5
53	Nanopattern of the Inner Surface of Carbon Nanotubes for Self-Assembly of Nanoparticles:â€‰A Multistep Monte Carlo Method. Journal of Physical Chemistry C, 2007, 111, 11802-11805.	1.5	3
54	A Monte Carlo Study of Spherical Electrical Double Layer of Macroionsâ^'Polyelectrolytes Systems in Salt Free Solutions. Journal of Physical Chemistry B, 2006, 110, 26232-26239.	1.2	14