Zexin Zhang

List of Publications by Year
in descending order

78 papers	2,824 citations	186265 28 h-index	175258 52 g-index
78 all docs	78 docs citations	78 times ranked	3265 citing authors

#	Article	IF	Citations
1	Water in bacterial biofilms: pores and channels, storage and transport functions. Critical Reviews in Microbiology, 2022, 48, 283-302.	6.1	38
2	Glycopolymer Engineering of the Cell Surface Changes the Single Cell Migratory Direction and Inhibits the Collective Migration of Cancer Cells. ACS Applied Materials & Interfaces, 2022, 14, 4921-4930.	8.0	5
3	Reconfiguring Self-Assembly of Photoresponsive Hybrid Colloids. Journal of the American Chemical Society, 2022, 144, 4754-4758.	13.7	11
4	Synthesis of Rod-Shaped ZnO/Polysiloxane Micromotors with Patch-Dependent Motion Modes. Langmuir, 2022, 38, 4389-4395.	3.5	2
5	A self-cleaning surface based on UV-activatable, AgCl micropumps for bacterial killing and removal. Chemical Communications, 2022, 58, 7030-7033.	4.1	2
6	Possibilities and impossibilities of magnetic nanoparticle use in the control of infectious biofilms. Journal of Materials Science and Technology, 2021, 69, 69-78.	10.7	19
7	Polymerization in Shear Flow: From Bowl-Shaped Glyco-Microcarriers to Self-Propelled Micromotors. ACS Macro Letters, 2021, 10, 9-13.	4.8	16
8	Facile synthesis of micron-size Janus particles by one-pot suspension polymerization and their functional modification. Polymer Chemistry, 2021, 12, 2722-2730.	3.9	0
9	Magnetic matchstick micromotors with switchable motion modes. Chemical Communications, 2021, 57, 3797-3800.	4.1	15
10	Influence of interaction between surface-modified magnetic nanoparticles with infectious biofilm components in artificial channel digging and biofilm eradication by antibiotics in vitro and in vivo. Nanoscale, 2021, 13, 4644-4653.	5.6	16
11	2D isotropicâ€“nematic transition in colloidal suspensions of ellipsoids. Soft Matter, 2021, 17, 6001-6005.	2.7	9
12	Measurement of expansion factor and distortion for expansion microscopy using isolated renal glomeruli as landmarks. Journal of Biophotonics, 2021, 14, e202100001.	2.3	5
13	Shape-Tunable Janus Micromotors via Surfactant-Induced Dewetting. Langmuir, 2021, 37, 4964-4970.	3.5	16
14	Synthesis of Snowmanâ€shaped Photocatalytic Microrotors and Mechanical Micropumps. ChemNanoMat, 2021, 7, 902-905.	2.8	5
15	2D Colloidal Crystals with Anisotropic Impurities. Physical Review Letters, 2021, 127, 018004.	7.8	10
16	Colloidal assembly manipulated by light-responsive Ag₃PO₄ nanoparticles. Chemical Communications, 2021, 57, 10347-10350.	4.1	4
17	On-demand pulling-off of magnetic nanoparticles from biomaterial surfaces through implant-associated infectious biofilms for enhanced antibiotic efficacy. Materials Science and Engineering C, 2021, 131, 112526.	7.3	7
18	Observation of the Pinning-Induced Crystal-Hexatic-Glass Transition in Two-Dimensional Colloidal Suspensions. Chinese Physics Letters, 2021, 38, 106101.	3.3	0

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19	Homogeneous Distribution of Magnetic, Antimicrobial-Carrying Nanoparticles through an Infectious Biofilm Enhances Biofilm-Killing Efficacy. ACS Biomaterials Science and Engineering, 2020, 6, 205-212.	5.2	31
20	Promoting the activation of T cells with glycopolymer-modified dendritic cells by enhancing cell interactions. Science Advances, 2020, 6, .	10.3	35
21	Highly Branched Gradient Glycopolymer: Enzyme-Assisted Synthesis and Enhanced Bacteria-Binding Ability. Biomacromolecules, 2020, 21, 5233-5240.	5.4	9
22	Preparation of dual-drive hybrid micromotors by swelling and selective surface modification of polymeric colloids. Colloids and Interface Science Communications, 2020, 38, 100300.	4.1	4
23	Largeâ€scale Synthesis of Uniform and Shapeâ€tunable ZnO/Polysiloxane Janus Micromotors Powered by Visible Light and Pure Water. ChemNanoMat, 2020, 6, 1749-1753.	2.8	9
24	Diffusion of Anisotropic Colloids in Periodic Arrays of Obstacles. Langmuir, 2020, 36, 11866-11872.	3.5	6
25	Motor and Rotor in One: Light-Active ZnO/Au Twinned Rods of Tunable Motion Modes. Journal of the American Chemical Society, 2020, 142, 2213-2217.	13.7	52
26	Universal Antibacterial Surfaces Fabricated from Quaternary Ammonium Salt-Based PNIPAM Microgels. ACS Applied Materials & Interfaces, 2020, 12, 19268-19276.	8.0	48
27	Nature of the glass transition in 2D colloidal suspensions of short rods. New Journal of Physics, 2020, 22, 103066.	2.9	9
28	Nonperturbative effects of attraction on dynamical behaviors of glass-forming liquids*. Chinese Physics B, 2020, 29, 126201.	1.4	1
29	Artificial Channels in an Infectious Biofilm Created by Magnetic Nanoparticles Enhanced Bacterial Killing by Antibiotics. Small, 2019, 15, e1902313.	10.0	70
30	Ultralow Self-Cross-Linked Poly(N-isopropylacrylamide) Microgels Prepared by Solvent Exchange. Langmuir, 2019, 35, 13991-13998.	3.5	6
31	Phototactic Flocking of Photochemical Micromotors. IScience, 2019, 19, 415-424.	4.1	108
32	Single Nanoparticle Tracking Reveals Efficient Long-Distance Undercurrent Transport in Upper Fluid of Bacterial Swarms. IScience, 2019, 22, 123-132.	4.1	12
33	Two-dimensional crystallization in finite-sized colloidal systems. Wuli Xuebao/Acta Physica Sinica, 2019, 68, 106401.	0.5	3
34	Application of video microscopy in experimental soft matter physics. International Journal of Modern Physics B, 2018, 32, 1840012.	2.0	0
35	Synthesis of Polystyrene Particles with Precisely Controlled Degree of Concaveness. Polymers, 2018, 10, 458.	4.5	13
36	Electric field-induced circulation and vacuolization regulate enzyme reactions in coacervate-based protocells. Soft Matter, 2018, 14, 6514-6520.	2.7	16

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37	Glass transition in binary mixture of colloidal ellipsoids and spheres. Wuli Xuebao/Acta Physica Sinica, 2018, 67, 106401.	0.5	1
38	Cold flow of three-dimensional confined polymer systems. Polymer, 2017, 111, 67-72.	3.8	3
39	Application of video microscopy in probing structures and dynamics of micromotor systems. Chinese Science Bulletin, 2017, 62, 186-193.	0.7	1
40	Direct observation of melting in a two-dimensional driven granular system. Scientific Reports, 2016, 6, 24056.	3.3	19
41	Stimuliâ€Responsive Shape Switching of Polymer Colloids by Temperatureâ€Sensitive Absorption of Solvent. Angewandte Chemie, 2016, 128, 10106-10109.	2.0	6
42	Stimuliâ€Responsive Shape Switching of Polymer Colloids by Temperatureâ€Sensitive Absorption of Solvent. Angewandte Chemie - International Edition, 2016, 55, 9952-9955.	13.8	13
43	Non-equilibrium behaviour in coacervate-based protocells under electric-field-induced excitation. Nature Communications, 2016, 7, 10658.	12.8	109
44	Synthesis of Biofunctional Janus Particles. Macromolecular Rapid Communications, 2015, 36, 1200-1204.	3.9	28
45	A tale of two forces: simultaneous chemical and acoustic propulsion of bimetallic micromotors. Chemical Communications, 2015, 51, 1020-1023.	4.1	110
46	Relationship between particle elasticity, glass fragility, and structural relaxation in dense microgel suspensions. Soft Matter, 2015, 11, 5485-5491.	2.7	11
47	Two-step nucleation mechanism in solidâ€“solid phase transitions. Nature Materials, 2015, 14, 101-108.	27.5	256
48	Encapsulation of Hydrophobic Phthalocyanine with Poly(N-isopropylacrylamide)/Lipid Composite Microspheres for Thermo-Responsive Release and Photodynamic Therapy. Materials, 2014, 7, 3481-3493.	2.9	15
49	Tunable dual-stimuli response of a microgel composite consisting of reduced graphene oxide nanoparticles and poly(N-isopropylacrylamide) hydrogel microspheres. Journal of Materials Chemistry B, 2014, 2, 3791-3798.	5.8	34
50	Synthesis of soft colloids with well-controlled softness. Chemical Communications, 2014, 50, 7535-7537.	4.1	2
51	Rheology of soft colloids across the onset of rigidity: scaling behavior, thermal, and non-thermal responses. Soft Matter, 2014, 10, 3027.	2.7	57
52	Revisit to phase diagram of poly(N-isopropylacrylamide) microgel suspensions by mechanical spectroscopy. Journal of Chemical Physics, 2014, 140, 024908.	3.0	24
53	Mechanism of two-dimensional crystal formation from soft microgel particles. Soft Matter, 2013, 9, 9924.	2.7	11
54	Syntheses and applications of concave and convex colloids with precisely controlled shapes. Soft Matter, 2013, 9, 11392.	2.7	37

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55	Fabrication of Large Two-Dimensional Colloidal Crystals via Self-Assembly in an Attractive Force Gradient. Langmuir, 2013, 29, 7216-7220.	3.5	23
56	Relationship between neighbor number and vibrational spectra in disordered colloidal clusters with attractive interactions. Journal of Chemical Physics, 2013, 138, 12A525.	3.0	6
57	Observation and characterization of the vestige of the jamming transition in a thermal three-dimensional system. Physical Review E, 2013, 87, 012303.	2.1	17
58	Self-assembly of multilayered functional films based on graphene oxide sheets for controlled release. Journal of Materials Chemistry, 2011, 21, 3471.	6.7	33
59	Cooperative Rearrangement Regions and Dynamical Heterogeneities in Colloidal Glasses with Attractive Versus Repulsive Interactions. Physical Review Letters, 2011, 107, 208303.	7.8	114
60	Measurement of Correlations between Low-Frequency Vibrational Modes and Particle Rearrangements in Quasi-Two-Dimensional Colloidal Glasses. Physical Review Letters, 2011, 107, 108301.	7.8	98
61	Graphene oxide monolayers as supporting films for high resolution transmission electron microscopy. Applied Surface Science, 2011, 257, 5754-5758.	6.1	7
62	Phonon Spectra, Nearest Neighbors, and Mechanical Stability of Disordered Colloidal Clusters with Attractive Interactions. Physical Review Letters, 2011, 106, 225503.	7.8	18
63	Rotational and translational phonon modes in glasses composed of ellipsoidal particles. Physical Review E, 2011, 83, 011403.	2.1	26
64	Observation of the Disorder-Induced Crystal-to-Glass Transition. Physical Review Letters, 2010, 104, 015701.	7.8	69
65	Low-Frequency Vibrations of Soft Colloidal Glasses. Physical Review Letters, 2010, 105, 025501.	7.8	147
66	Helical packings and phase transformations of soft spheres in cylinders. Physical Review E, 2010, 81, 040401.	2.1	50
67	Microfluidic Rheology of Soft Colloids above and below Jamming. Physical Review Letters, 2010, 105, 175701.	7.8	162
68	Irreversible Rearrangements, Correlated Domains, and Local Structure in Aging Glasses. Physical Review Letters, 2009, 103, 115701.	7.8	90
69	Thermal vestige of the zero-temperature jamming transition. Nature, 2009, 459, 230-233.	27.8	232
70	Effect of suspended clay particles on isotropicâ€“nematic phase transition of liquid crystal. Soft Matter, 2007, 3, 596-604.	2.7	23
71	Isotropic-nematic phase transition of nonaqueous suspensions of natural clay rods. Journal of Chemical Physics, 2006, 124, 154910.	3.0	80
72	Experimental Phase Diagram of a Model Colloidâ^'Polymer Mixture in the Protein Limit. Langmuir, 2006, 22, 63-66.	3.5	28

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73	Fabrication of arrays of silver nanoparticle aggregates by microcontact printing and block copolymer nanoreactors. Journal of Applied Polymer Science, 2006, 100, 2737-2743.	2.6	13
74	Water-induced morphology evolution of block copolymer micellar thin films. Polymer, 2005, 46, 5377-5384.	3.8	37
75	Surface-induced Phase Separation of Binary Polymer Blends on the Chemically Patterned Substrate. Polymer Bulletin, 2005, 55, 131-140.	3.3	12
76	Ordered droplet formation by thin polymer film dewetting on a stripe-patterned substrate. Journal of Colloid and Interface Science, 2004, 269, 158-163.	9.4	58
77	Patterning thin polymer films by surface-directed dewetting and pattern transfer. Polymer, 2003, 44, 3737-3743.	3.8	78
78	How to form regular polymer microstructures by surface-pattern-directed dewetting. Surface Science, 2003, 539, 129-136.	1.9	54