Zhong-Huai Hou

List of Publications by Year
in descending order

93	1,673	279798	345221
papers	citations	23 h-index	36 g-index

95	95	95	1309
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Nonequilibrium Dynamics of Chemically Active Particles. Chinese Journal of Chemistry, 2022, 40, 419-429.	4.9	6
2	Surface Engineering on Commercial Cu Foil for Steering C₂H₄/CH₄ Ratio in CO₂ Electroreduction. Nano Letters, 2022, 22, 2988-2994.	9.1	16
3	Local concentration effect on nano-electrocatalytic CO2 reduction. Carbon Capture Science & Technology, 2022, 3, 100047.	10.4	3
4	Effective entropy production and thermodynamic uncertainty relation of active Brownian particles. Physics of Fluids, 2022, 34, .	4.0	6
5	Inertia-induced nucleation-like motility-induced phase separation. New Journal of Physics, 2021, 23, 013005.	2.9	22
6	Mechanisms beyond energetics revealed by multiscale kinetic modeling of <scp>2D</scp>â€material growth and nanocatalysis. Wiley Interdisciplinary Reviews: Computational Molecular Science, 2021, 11, e1524.	14.6	3
7	Hidden Mechanism Behind the Roughnessâ€Enhanced Selectivity of Carbon Monoxide Electrocatalytic Reduction. Angewandte Chemie, 2021, 133, 11233-11237.	2.0	6
8	Simulation study of passive rod diffusion in active bath: Nonmonotonic length dependence and abnormal translation-rotation coupling. Chinese Journal of Chemical Physics, 2021, 34, 157-164.	1.3	10
9	Hidden Mechanism Behind the Roughnessâ€Enhanced Selectivity of Carbon Monoxide Electrocatalytic Reduction. Angewandte Chemie - International Edition, 2021, 60, 11133-11137.	13.8	19
10	Microchemical Engineering in a 3D Ordered Channel Enhances Electrocatalysis. Journal of the American Chemical Society, 2021, 143, 12600-12608.	13.7	25
11	Local Field Induced Mass Transfer: New Insight into Nanoâ€electrocatalysis. Chemistry - A European Journal, 2021, 27, 17726-17735.	3.3	7
12	Emergent spiral vortex of confined biased active particles. Physical Review E, 2021, 104, 034606.	2.1	8
13	Designing circle swimmers: Principles and strategies. Journal of Chemical Physics, 2021, 155, 234901.	3.0	3
14	Frontispiece: Local Field Induced Mass Transfer: New Insight into Nanoâ€electrocatalysis. Chemistry - A European Journal, 2021, 27, .	3.3	0
15	Selectively Scissoring Hydrogen-Bonded Cytosine Dimer Structures Catalyzed by Water Molecules. ACS Nano, 2020, 14, 10680-10687.	14.6	10
16	A Kinetic View on Proximity-Dependent Selectivity of Carbon Dioxide Reduction on Bifunctional Catalysts. ACS Catalysis, 2020, 10, 13518-13523.	11.2	14
17	Non-monotonic dependence of polymer chain dynamics on active crowder size. Journal of Chemical Physics, 2020, 152, 204906.	3.0	7
18	Radial Nanowire Assemblies under Rotating Magnetic Field Enabled Efficient Charge Separation. Nano Letters, 2020, 20, 2763-2769.	9.1	16

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19	Rod-assisted heterogeneous nucleation in active suspensions. Soft Matter, 2020, 16, 6434-6441.	2.7	4
20	Emergent swarming states in active particles system with opposite anisotropic interactions. Chinese Journal of Chemical Physics, 2020, 33, 717-726.	1.3	8
21	Design principles for biochemical oscillations with limited energy resources. Physical Review Research, 2020, 2, .	3.6	7
22	Disordered hyperuniform obstacles enhance sorting of dynamically chiral microswimmers. Soft Matter, 2019, 15, 6830-6835.	2.7	12
23	Tunable Sorting of Mesoscopic Chiral Structures by External Noise in Achiral Periodic Potentials. Journal of Physical Chemistry C, 2019, 123, 17624-17631.	3.1	1
24	Configuration dynamics of a flexible polymer chain in a bath of chiral active particles. Journal of Chemical Physics, 2019, 151, 174904.	3.0	17
25	Study of active Brownian particle diffusion in polymer solutions. Soft Matter, 2019, 15, 2020-2031.	2.7	29
26	Ordered Nanostructure Enhances Electrocatalytic Performance by Directional Micro-Electric Field. Journal of the American Chemical Society, 2019, 141, 10729-10735.	13.7	38
27	Self-assembly of active core corona particles into highly ordered and self-healing structures. Journal of Chemical Physics, 2019, 151, 154904.	3.0	11
28	Assembled superlattice with dynamic chirality in a mixture of biased-active and passive particles. Soft Matter, 2019, 15, 9104-9110.	2.7	9
29	Mode-Coupling theory for glass transition of active-passive binary mixture. Chinese Journal of Chemical Physics, 2018, 31, 584-594.	1.3	12
30	Polymer segregation in cylindrical confinement revisited: A three-dimensional free energy landscape. Journal of Chemical Physics, 2018, 149, 244906.	3.0	5
31	Hybrid multiscale coarse-graining for dynamics on complex networks. Chaos, 2018, 28, 123122.	2.5	1
32	Realâ€Time Probing of Nanowire Assembly Kinetics at the Airâ€“Water Interface by Inâ€…Situ Synchrotron Xâ€Ray Scattering. Angewandte Chemie, 2018, 130, 8262-8266.	2.0	3
33	Realâ€Time Probing of Nanowire Assembly Kinetics at the Airâ€“Water Interface by Inâ€…Situ Synchrotron Xâ€Ray Scattering. Angewandte Chemie - International Edition, 2018, 57, 8130-8134.	13.8	14
34	Emergence of collective dynamical chirality for achiral active particles. Soft Matter, 2017, 13, 836-841.	2.7	19
35	Reentrant phase separation behavior of active particles with anisotropic Janus interaction. Soft Matter, 2017, 13, 4112-4121.	2.7	31
36	Unraveling the Mechanism for the Sharpâ€Tip Enhanced Electrocatalytic Carbon Dioxide Reduction: The Kinetics Decide. Angewandte Chemie - International Edition, 2017, 56, 15617-15621.	13.8	76

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37	Unraveling the Mechanism for the Sharpâ€Tip Enhanced Electrocatalytic Carbon Dioxide Reduction: The Kinetics Decide. Angewandte Chemie, 2017, 129, 15823-15827.	2.0	8
38	Optimal allocation of resources for suppressing epidemic spreading on networks. Physical Review E, 2017, 96, 012321.	2.1	26
39	The effect of hydrodynamic interactions on nanoparticle diffusion in polymer solutions: a multiparticle collision dynamics study. Soft Matter, 2017, 13, 8625-8635.	2.7	17
40	Diffusion of a Rouse chain in porous media: A mode-coupling-theory study. Physical Review E, 2017, 95, 012121.	2.1	2
41	Study of dynamic heterogeneity of an active particle system. Physical Review E, 2017, 95, 052608.	2.1	11
42	First-order phase transition in a majority-vote model with inertia. Physical Review E, 2017, 95, 042304.	2.1	37
43	Mode coupling theory for nonequilibrium glassy dynamics of thermal self-propelled particles. Soft Matter, 2017, 13, 4464-4481.	2.7	39
44	Diffusion of Nanoparticles in Semidilute Polymer Solutions: A Multiparticle Collision Dynamics Study. Chinese Journal of Chemical Physics, 2016, 29, 549-556.	1.3	8
45	Polymer translocation through nanopore into active bath. Journal of Chemical Physics, 2016, 145, 174902.	3.0	13
46	Understanding Protein Diffusion in Polymer Solutions: A Hydration with Depletion Model. Journal of Physical Chemistry B, 2016, 120, 10114-10123.	2.6	14
47	Formation of spiral waves with substructure in a bursting media. Chaos, 2015, 25, 123105.	2.5	5
48	Entropic transport without external force in confined channel with oscillatory boundary. Journal of Chemical Physics, 2015, 143, 244119.	3.0	15
49	Large-scale epitaxial growth kinetics of graphene: A kinetic Monte Carlo study. Journal of Chemical Physics, 2015, 143, 084109.	3.0	23
50	Effects of hydrodynamic interactions on the crystallization of passive and active colloidal systems. Soft Matter, 2015, 11, 5712-5718.	2.7	12
51	Critical noise of majority-vote model on complex networks. Physical Review E, 2015, 91, 022816.	2.1	34
52	Entropic stochastic resonance without external force in oscillatory confined space. Journal of Chemical Physics, 2015, 142, 194109.	3.0	18
53	Diffusion of nanoparticles in semidilute polymer solutions: A mode-coupling theory study. Journal of Chemical Physics, 2015, 143, 024903.	3.0	33
54	Hydrodynamic interaction induced spontaneous rotation of coupled active filaments. Soft Matter, 2014, 10, 9248-9253.	2.7	21

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55	Distance fluctuation of a single molecule in Lennard-Jones liquid based on generalized Langevin equation and mode coupling theory. Journal of Chemical Physics, 2014, 140, .	3.0	9
56	Stretching of single poly-ubiquitin molecules revisited: Dynamic disorder in the non-exponential unfolding kinetics. Journal of Chemical Physics, 2014, 140, 125102.	3.0	11
57	Motion transition of active filaments: rotation without hydrodynamic interactions. Soft Matter, 2014, 10, 1012.	2.7	49
58	Mobility and density induced amplitude death in metapopulation networks of coupled oscillators. Chaos, 2014, 24, 043125.	2.5	11
59	An efficient self-optimized sampling method for rare events in nonequilibrium systems. Science China Chemistry, 2014, 57, 165-171.	8.2	4
60	Orientation-sensitive nonlinear growth of graphene: An epitaxial growth mechanism determined by geometry. Physical Review B, 2013, 88, .	3.2	9
61	Array-enhanced Logical Stochastic Resonance in Coupled Bistable Systems. Chinese Journal of Chemical Physics, 2012, 25, 70-76.	1.3	17
62	Stability and Flipping Dynamics of Delayed Genetic Toggle Switch. Chinese Journal of Chemical Physics, 2012, 25, 53-59.	1.3	2
63	Nucleation of Kinetic Ising Model under Oscillating Field. Chinese Journal of Chemical Physics, 2012, 25, 419-422.	1.3	1
64	Lattice Mismatch Induced Nonlinear Growth of Graphene. Journal of the American Chemical Society, 2012, 134, 6045-6051.	13.7	88
65	Coarse-grained Simulations of Chemical Oscillation in Lattice Brusselator System. Chinese Journal of Chemical Physics, 2011, 24, 425-433.	1.3	1
66	Fluctuation theorem for entropy production in a chemical reaction channel. Science China Chemistry, 2010, 53, 396-401.	8.2	2
67	Fluctuation Resonance of Feed Forward Loops in Gene Regulatory Networks. Chinese Journal of Chemical Physics, 2009, 22, 359-365.	1.3	0
68	Stochastic Thermodynamics in Mesoscopic Chemical Oscillation Systems. Journal of Physical Chemistry B, 2009, 113, 9316-9320.	2.6	22
69	Entropy production and fluctuation theorem along a stochastic limit cycle. Journal of Chemical Physics, 2008, 129, 114506.	3.0	22
70	System Size Resonance Associated with Canard Phenomenon in a Biological Cell System. Chinese Journal of Chemical Physics, 2008, 21, 521-525.	1.3	2
71	Coherent Resonance for Rate Oscillations During CO Oxidation on Pt(110) Surfaces: Interplay Between Internal and External Noise. Chinese Journal of Chemical Physics, 2008, 21, 339-345.	1.3	5
72	Coherence resonance induced by colored noise near Hopf bifurcation. Chaos, 2008, 18, 043116.	2.5	33

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73	Effects of internal noise in mesoscopic chemical systems near Hopf bifurcation. New Journal of Physics, 2007, 9, 403-403.	2.9	29
74	Optimal Internal Noise for Mammalian Circadian Oscillator. Chinese Journal of Chemical Physics, 2007, 20, 119-125.	1.3	1
75	On the study of nonlinear dynamics of complex chemical reaction systems. Science in China Series B: Chemistry, 2006, 49, 1-11.	0.8	3
76	Canard explosion and internal signal stochastic bi-resonance in the CO oxidation on platinum surface. Science in China Series B: Chemistry, 2006, 49, 133-139.	0.8	0
77	Internal Noise Coherent Resonance for Mesoscopic Chemical Oscillations: A Fundamental Study. ChemPhysChem, 2006, 7, 1520-1524.	2.1	28
78	Two system-size-resonance behaviors for calcium signaling: For optimal cell size and for optimal network size. Physical Review E, 2006, 74, 031901.	2.1	21
79	Transfer of Noise into Signal through One-Way Coupled Chemical Oscillators. ChemPhysChem, 2005, 6, 58-61.	2.1	8
80	Effects of internal noise for rate oscillations during CO oxidation on platinum surfaces. Journal of Chemical Physics, 2005, 122, 134708.	3.0	17
81	Optimal System Size for Mesoscopic Chemical Oscillation. ChemPhysChem, 2004, 5, 407-410.	2.1	38
82	System-Size Biresonance for Intracellular Calcium Signaling. ChemPhysChem, 2004, 5, 1041-1045.	2.1	35
83	Oscillator death on small-world networks. Physical Review E, 2003, 68, 055103.	2.1	66
84	Internal noise stochastic resonance in a circadian clock system. Journal of Chemical Physics, 2003, 119, 11508-11512.	3.0	108
85	Noise-Sustained Spiral Waves: Effect of Spatial and Temporal Memory. Physical Review Letters, 2002, 89, 280601.	7.8	47
86	Stochastic bi-resonance without external signal in the CO+O2 catalytic oxidation reaction system. Journal of Chemical Physics, 1999, 111, 1592-1594.	3.0	35
87	Stochastic resonance in the absence and presence of external signals for a chemical reaction. Journal of Chemical Physics, 1999, 110, 3591-3595.	3.0	55
88	Periodic and random perturbation of catalytic oxidation of CO. Science in China Series B: Chemistry, 1999, 42, 332-336.	0.8	0
89	Enhancement of Internal Signal Stochastic Resonance by Noise Modulation in the CSTR System. Journal of Physical Chemistry A, 1999, 103, 6181-6183.	2.5	14
90	Stochastic resonance in catalytic reduction of NO with CO on Pt(100). Journal of Chemical Physics, 1998, 109, 6456-6459.	3.0	29

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91	Stochastic resonance in liquid membrane oscillator. Journal of Chemical Physics, 1998, 109, 6063-6066.	3.0	7
92	Stochastic resonance in surface catalytic oxidation of carbon monoxide. Journal of Chemical Physics, 1998, 109, 2002-2005.	3.0	28
93	Improved estimation for energy dissipation in biochemical oscillations. Journal of Chemical Physics, 0, , .	3.0	2