

Zhong-Huai Hou

List of Publications by Year in descending order

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93
papers

1,673
citations

279798

23
h-index

345221

36
g-index

95
all docs

95
docs citations

95
times ranked

1309
citing authors

#	ARTICLE	IF	CITATIONS
1	Internal noise stochastic resonance in a circadian clock system. <i>Journal of Chemical Physics</i> , 2003, 119, 11508-11512.	3.0	108
2	Lattice Mismatch Induced Nonlinear Growth of Graphene. <i>Journal of the American Chemical Society</i> , 2012, 134, 6045-6051.	13.7	88
3	Unraveling the Mechanism for the Sharp Tip Enhanced Electrocatalytic Carbon Dioxide Reduction: The Kinetics Decide. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 15617-15621.	13.8	76
4	Oscillator death on small-world networks. <i>Physical Review E</i> , 2003, 68, 055103.	2.1	66
5	Stochastic resonance in the absence and presence of external signals for a chemical reaction. <i>Journal of Chemical Physics</i> , 1999, 110, 3591-3595.	3.0	55
6	Motion transition of active filaments: rotation without hydrodynamic interactions. <i>Soft Matter</i> , 2014, 10, 1012.	2.7	49
7	Noise-Sustained Spiral Waves: Effect of Spatial and Temporal Memory. <i>Physical Review Letters</i> , 2002, 89, 280601.	7.8	47
8	Mode coupling theory for nonequilibrium glassy dynamics of thermal self-propelled particles. <i>Soft Matter</i> , 2017, 13, 4464-4481.	2.7	39
9	Optimal System Size for Mesoscopic Chemical Oscillation. <i>ChemPhysChem</i> , 2004, 5, 407-410.	2.1	38
10	Ordered Nanostructure Enhances Electrocatalytic Performance by Directional Micro-Electric Field. <i>Journal of the American Chemical Society</i> , 2019, 141, 10729-10735.	13.7	38
11	First-order phase transition in a majority-vote model with inertia. <i>Physical Review E</i> , 2017, 95, 042304.	2.1	37
12	Stochastic bi-resonance without external signal in the CO+O ₂ catalytic oxidation reaction system. <i>Journal of Chemical Physics</i> , 1999, 111, 1592-1594.	3.0	35
13	System-Size Biresonance for Intracellular Calcium Signaling. <i>ChemPhysChem</i> , 2004, 5, 1041-1045.	2.1	35
14	Critical noise of majority-vote model on complex networks. <i>Physical Review E</i> , 2015, 91, 022816.	2.1	34
15	Coherence resonance induced by colored noise near Hopf bifurcation. <i>Chaos</i> , 2008, 18, 043116.	2.5	33
16	Diffusion of nanoparticles in semidilute polymer solutions: A mode-coupling theory study. <i>Journal of Chemical Physics</i> , 2015, 143, 024903.	3.0	33
17	Reentrant phase separation behavior of active particles with anisotropic Janus interaction. <i>Soft Matter</i> , 2017, 13, 4112-4121.	2.7	31
18	Stochastic resonance in catalytic reduction of NO with CO on Pt(100). <i>Journal of Chemical Physics</i> , 1998, 109, 6456-6459.	3.0	29

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19	Effects of internal noise in mesoscopic chemical systems near Hopf bifurcation. <i>New Journal of Physics</i> , 2007, 9, 403-403.	2.9	29
20	Study of active Brownian particle diffusion in polymer solutions. <i>Soft Matter</i> , 2019, 15, 2020-2031.	2.7	29
21	Stochastic resonance in surface catalytic oxidation of carbon monoxide. <i>Journal of Chemical Physics</i> , 1998, 109, 2002-2005.	3.0	28
22	Internal Noise Coherent Resonance for Mesoscopic Chemical Oscillations: A Fundamental Study. <i>ChemPhysChem</i> , 2006, 7, 1520-1524.	2.1	28
23	Optimal allocation of resources for suppressing epidemic spreading on networks. <i>Physical Review E</i> , 2017, 96, 012321.	2.1	26
24	Microchemical Engineering in a 3D Ordered Channel Enhances Electrocatalysis. <i>Journal of the American Chemical Society</i> , 2021, 143, 12600-12608.	13.7	25
25	Large-scale epitaxial growth kinetics of graphene: A kinetic Monte Carlo study. <i>Journal of Chemical Physics</i> , 2015, 143, 084109.	3.0	23
26	Entropy production and fluctuation theorem along a stochastic limit cycle. <i>Journal of Chemical Physics</i> , 2008, 129, 114506.	3.0	22
27	Stochastic Thermodynamics in Mesoscopic Chemical Oscillation Systems. <i>Journal of Physical Chemistry B</i> , 2009, 113, 9316-9320.	2.6	22
28	Inertia-induced nucleation-like motility-induced phase separation. <i>New Journal of Physics</i> , 2021, 23, 013005.	2.9	22
29	Two system-size-resonance behaviors for calcium signaling: For optimal cell size and for optimal network size. <i>Physical Review E</i> , 2006, 74, 031901.	2.1	21
30	Hydrodynamic interaction induced spontaneous rotation of coupled active filaments. <i>Soft Matter</i> , 2014, 10, 9248-9253.	2.7	21
31	Emergence of collective dynamical chirality for achiral active particles. <i>Soft Matter</i> , 2017, 13, 836-841.	2.7	19
32	Hidden Mechanism Behind the Roughness-Enhanced Selectivity of Carbon Monoxide Electrocatalytic Reduction. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 11133-11137.	13.8	19
33	Entropic stochastic resonance without external force in oscillatory confined space. <i>Journal of Chemical Physics</i> , 2015, 142, 194109.	3.0	18
34	Effects of internal noise for rate oscillations during CO oxidation on platinum surfaces. <i>Journal of Chemical Physics</i> , 2005, 122, 134708.	3.0	17
35	Array-enhanced Logical Stochastic Resonance in Coupled Bistable Systems. <i>Chinese Journal of Chemical Physics</i> , 2012, 25, 70-76.	1.3	17
36	The effect of hydrodynamic interactions on nanoparticle diffusion in polymer solutions: a multiparticle collision dynamics study. <i>Soft Matter</i> , 2017, 13, 8625-8635.	2.7	17

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37	Configuration dynamics of a flexible polymer chain in a bath of chiral active particles. Journal of Chemical Physics, 2019, 151, 174904.	3.0	17
38	Radial Nanowire Assemblies under Rotating Magnetic Field Enabled Efficient Charge Separation. Nano Letters, 2020, 20, 2763-2769.	9.1	16
39	Surface Engineering on Commercial Cu Foil for Steering $C_{20}H_{40}/CH_{40}$ Ratio in CO_2 Electroreduction. Nano Letters, 2022, 22, 2988-2994.	9.1	16
40	Entropic transport without external force in confined channel with oscillatory boundary. Journal of Chemical Physics, 2015, 143, 244119.	3.0	15
41	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
42	Understanding Protein Diffusion in Polymer Solutions: A Hydration with Depletion Model. Journal of Physical Chemistry B, 2016, 120, 10114-10123.	2.6	14
43	Real-Time Probing of Nanowire Assembly Kinetics at the Air-Water Interface by In-Situ Synchrotron X-Ray Scattering. Angewandte Chemie - International Edition, 2018, 57, 8130-8134.	13.8	14
44	A Kinetic View on Proximity-Dependent Selectivity of Carbon Dioxide Reduction on Bifunctional Catalysts. ACS Catalysis, 2020, 10, 13518-13523.	11.2	14
45	Polymer translocation through nanopore into active bath. Journal of Chemical Physics, 2016, 145, 174902.	3.0	13
46	Effects of hydrodynamic interactions on the crystallization of passive and active colloidal systems. Soft Matter, 2015, 11, 5712-5718.	2.7	12
47	Mode-Coupling theory for glass transition of active-passive binary mixture. Chinese Journal of Chemical Physics, 2018, 31, 584-594.	1.3	12
48	Disordered hyperuniform obstacles enhance sorting of dynamically chiral microswimmers. Soft Matter, 2019, 15, 6830-6835.	2.7	12
49	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
50	Mobility and density induced amplitude death in metapopulation networks of coupled oscillators. Chaos, 2014, 24, 043125.	2.5	11
51	Study of dynamic heterogeneity of an active particle system. Physical Review E, 2017, 95, 052608.	2.1	11
52	Self-assembly of active core corona particles into highly ordered and self-healing structures. Journal of Chemical Physics, 2019, 151, 154904.	3.0	11
53	Selectively Scissoring Hydrogen-Bonded Cytosine Dimer Structures Catalyzed by Water Molecules. ACS Nano, 2020, 14, 10680-10687.	14.6	10
54	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

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55	Orientation-sensitive nonlinear growth of graphene: An epitaxial growth mechanism determined by geometry. <i>Physical Review B</i> , 2013, 88, .	3.2	9
56	Distance fluctuation of a single molecule in Lennard-Jones liquid based on generalized Langevin equation and mode coupling theory. <i>Journal of Chemical Physics</i> , 2014, 140, .	3.0	9
57	Assembled superlattice with dynamic chirality in a mixture of biased-active and passive particles. <i>Soft Matter</i> , 2019, 15, 9104-9110.	2.7	9
58	Transfer of Noise into Signal through One-Way Coupled Chemical Oscillators. <i>ChemPhysChem</i> , 2005, 6, 58-61.	2.1	8
59	Diffusion of Nanoparticles in Semidilute Polymer Solutions: A Multiparticle Collision Dynamics Study. <i>Chinese Journal of Chemical Physics</i> , 2016, 29, 549-556.	1.3	8
60	Unraveling the Mechanism for the Sharp Tip Enhanced Electrocatalytic Carbon Dioxide Reduction: The Kinetics Decide. <i>Angewandte Chemie</i> , 2017, 129, 15823-15827.	2.0	8
61	Emergent spiral vortex of confined biased active particles. <i>Physical Review E</i> , 2021, 104, 034606.	2.1	8
62	Emergent swarming states in active particles system with opposite anisotropic interactions. <i>Chinese Journal of Chemical Physics</i> , 2020, 33, 717-726.	1.3	8
63	Stochastic resonance in liquid membrane oscillator. <i>Journal of Chemical Physics</i> , 1998, 109, 6063-6066.	3.0	7
64	Non-monotonic dependence of polymer chain dynamics on active crowder size. <i>Journal of Chemical Physics</i> , 2020, 152, 204906.	3.0	7
65	Local Field Induced Mass Transfer: New Insight into Nano Electro catalysis. <i>Chemistry - A European Journal</i> , 2021, 27, 17726-17735.	3.3	7
66	Design principles for biochemical oscillations with limited energy resources. <i>Physical Review Research</i> , 2020, 2, .	3.6	7
67	Hidden Mechanism Behind the Roughness Enhanced Selectivity of Carbon Monoxide Electrocatalytic Reduction. <i>Angewandte Chemie</i> , 2021, 133, 11233-11237.	2.0	6
68	Nonequilibrium Dynamics of Chemically Active Particles. <i>Chinese Journal of Chemistry</i> , 2022, 40, 419-429.	4.9	6
69	Effective entropy production and thermodynamic uncertainty relation of active Brownian particles. <i>Physics of Fluids</i> , 2022, 34, .	4.0	6
70	Coherent Resonance for Rate Oscillations During CO Oxidation on Pt(110) Surfaces: Interplay Between Internal and External Noise. <i>Chinese Journal of Chemical Physics</i> , 2008, 21, 339-345.	1.3	5
71	Formation of spiral waves with substructure in a bursting media. <i>Chaos</i> , 2015, 25, 123105.	2.5	5
72	Polymer segregation in cylindrical confinement revisited: A three-dimensional free energy landscape. <i>Journal of Chemical Physics</i> , 2018, 149, 244906.	3.0	5

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73	An efficient self-optimized sampling method for rare events in nonequilibrium systems. <i>Science China Chemistry</i> , 2014, 57, 165-171.	8.2	4
74	Rod-assisted heterogeneous nucleation in active suspensions. <i>Soft Matter</i> , 2020, 16, 6434-6441.	2.7	4
75	On the study of nonlinear dynamics of complex chemical reaction systems. <i>Science in China Series B: Chemistry</i> , 2006, 49, 1-11.	0.8	3
76	Real-time Probing of Nanowire Assembly Kinetics at the Air-Water Interface by In-situ Synchrotron X-ray Scattering. <i>Angewandte Chemie</i> , 2018, 130, 8262-8266.	2.0	3
77	Mechanisms beyond energetics revealed by multiscale kinetic modeling of 2D-material growth and nanocatalysis. <i>Wiley Interdisciplinary Reviews: Computational Molecular Science</i> , 2021, 11, e1524.	14.6	3
78	Designing circle swimmers: Principles and strategies. <i>Journal of Chemical Physics</i> , 2021, 155, 234901.	3.0	3
79	Local concentration effect on nano-electrocatalytic CO ₂ reduction. <i>Carbon Capture Science & Technology</i> , 2022, 3, 100047.	10.4	3
80	System Size Resonance Associated with Canard Phenomenon in a Biological Cell System. <i>Chinese Journal of Chemical Physics</i> , 2008, 21, 521-525.	1.3	2
81	Fluctuation theorem for entropy production in a chemical reaction channel. <i>Science China Chemistry</i> , 2010, 53, 396-401.	8.2	2
82	Stability and Flipping Dynamics of Delayed Genetic Toggle Switch. <i>Chinese Journal of Chemical Physics</i> , 2012, 25, 53-59.	1.3	2
83	Diffusion of a Rouse chain in porous media: A mode-coupling-theory study. <i>Physical Review E</i> , 2017, 95, 012121.	2.1	2
84	Improved estimation for energy dissipation in biochemical oscillations. <i>Journal of Chemical Physics</i> , 0, ,.	3.0	2
85	Optimal Internal Noise for Mammalian Circadian Oscillator. <i>Chinese Journal of Chemical Physics</i> , 2007, 20, 119-125.	1.3	1
86	Coarse-grained Simulations of Chemical Oscillation in Lattice Brusselator System. <i>Chinese Journal of Chemical Physics</i> , 2011, 24, 425-433.	1.3	1
87	Nucleation of Kinetic Ising Model under Oscillating Field. <i>Chinese Journal of Chemical Physics</i> , 2012, 25, 419-422.	1.3	1
88	Hybrid multiscale coarse-graining for dynamics on complex networks. <i>Chaos</i> , 2018, 28, 123122.	2.5	1
89	Tunable Sorting of Mesoscopic Chiral Structures by External Noise in Achiral Periodic Potentials. <i>Journal of Physical Chemistry C</i> , 2019, 123, 17624-17631.	3.1	1
90	Periodic and random perturbation of catalytic oxidation of CO. <i>Science in China Series B: Chemistry</i> , 1999, 42, 332-336.	0.8	0

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91	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
92	Fluctuation Resonance of Feed Forward Loops in Gene Regulatory Networks. Chinese Journal of Chemical Physics, 2009, 22, 359-365.	1.3	0
93	Frontispiece: Local Field Induced Mass Transfer: New Insight into Nano-electrocatalysis. Chemistry - A European Journal, 2021, 27, .	3.3	0