Liao Y Chen

List of Publications by Year
in descending order

95 papers	1,649 citations	346980 22 h-index	371746 37 g-index
101 all docs	101 docs citations	101 times ranked	1208 citing authors

#	Article	IF	Citations
1	Aquaglyceroporin AQP7's affinity for its substrate glycerol. Have we reached convergence in the computed values of glycerol-aquaglyceroporin affinity?. RSC Advances, 2022, 12, 3128-3135.	1.7	4
2	Effects of the N-terminal dynamics on the conformational states of human dopamine transporter. Biophysical Chemistry, 2022, 283, 106765.	1.5	3
3	Quantitative characterization of the path of glucose diffusion facilitated by human glucose transporter 1. Biochimica Et Biophysica Acta - Biomembranes, 2022, 1864, 183975.	1.4	1
4	Association of sigmaâ€1 receptor with dopamine transporter attenuates the binding of methamphetamine via distinct helixâ€“helix interactions. Chemical Biology and Drug Design, 2021, 97, 1194-1209.	1.5	5
5	Molecular dynamics simulation of human urea transporter B. Molecular Simulation, 2021, 47, 1022-1028.	0.9	2
6	Structural Insights into the Human Mitochondrial Pyruvate Carrier Complexes. Journal of Chemical Information and Modeling, 2021, 61, 5614-5625.	2.5	5
7	Identification of a New Allosteric Binding Site for Cocaine in Dopamine Transporter. Journal of Chemical Information and Modeling, 2020, 60, 3958-3968.	2.5	10
8	Molecular determinant of substrate binding and specificity of cytochrome P450 2J2. Scientific Reports, 2020, 10, 22267.	1.6	9
9	Quantitative study of unsaturated transport of glycerol through aquaglyceroporin that has high affinity for glycerol. RSC Advances, 2020, 10, 34203-34214.	1.7	4
10	Application of the Brown Dynamics Fluctuation-Dissipation Theorem to the Study of Plasmodium berghei Transporter Protein PbAQP. Frontiers in Physics, 2020, 8, .	1.0	0
11	In silicosimulations of erythrocyte aquaporins with quantitativein vitrovalidation. RSC Advances, 2020, 10, 21283-21291.	1.7	6
12	Thermodynamic Integration in 3n Dimensions Without Biases or Alchemy for Protein Interactions. Frontiers in Physics, 2020, 8, .	1.0	0
13	Single-channel permeability and glycerol affinity of human aquaglyceroporin AQP3. Biochimica Et Biophysica Acta - Biomembranes, 2019, 1861, 768-775.	1.4	20
14	Extracellular gating of glucose transport through GLUT 1. Biochemical and Biophysical Research Communications, 2019, 511, 573-578.	1.0	10
15	Thermodynamics of Amyloid-Î² Fibril Elongation: Atomistic Details of the Transition State. ACS Chemical Neuroscience, 2018, 9, 783-789.	1.7	33
16	Gibbs Free-Energy Gradient along the Path of Glucose Transport through Human Glucose Transporter 3. ACS Chemical Neuroscience, 2018, 9, 2815-2823.	1.7	13
17	Elongation affinity, activation barrier, and stability of AÎ²42 oligomers/fibrils in physiological saline. Biochemical and Biophysical Research Communications, 2017, 487, 444-449.	1.0	13
18	Computing osmotic permeabilities of aquaporins AQP4, AQP5, and GlpF from near-equilibrium simulations. Biochimica Et Biophysica Acta - Biomembranes, 2017, 1859, 1310-1316.	1.4	28

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19	Computing the binding affinity of a ligand buried deep inside a protein with the hybrid steered molecular dynamics. Biochemical and Biophysical Research Communications, 2017, 483, 203-208.	1.0	15
20	Affinity and path of binding xylopyranose unto E.Âcoli xylose permease. Biochemical and Biophysical Research Communications, 2017, 494, 202-206.	1.0	10
21	1,3-propanediol binds deep inside the channel to inhibit water permeation through aquaporins. Protein Science, 2016, 25, 433-441.	3.1	7
22	Molecular dynamics study of human carbonic anhydrase II in complex with Zn2+ and acetazolamide on the basis of all-atom force field simulations. Biophysical Chemistry, 2016, 214-215, 54-60.	1.5	18
23	1,3-Propanediol binds inside the water-conducting pore of aquaporin 4: Does this efficacious inhibitor have sufficient potency?. Journal of Systems and Integrative Neuroscience, 2016, 2, 91-98.	0.6	7
24	Aspheric Solute Ions Modulate Gold Nanoparticle Interactions in an Aqueous Solution: An Optimal Way To Reversibly Concentrate Functionalized Nanoparticles. Journal of Physical Chemistry B, 2015, 119, 15502-15508.	1.2	8
25	Computing Proteinâ€“Protein Association Affinity with Hybrid Steered Molecular Dynamics. Journal of Chemical Theory and Computation, 2015, 11, 4427-4438.	2.3	38
26	Erythritol predicted to inhibit permeation of water and solutes through the conducting pore of P. falciparum aquaporin. Biophysical Chemistry, 2015, 198, 14-21.	1.5	13
27	Hybrid Steered Molecular Dynamics Approach to Computing Absolute Binding Free Energy of Ligandâ€“Protein Complexes: A Brute Force Approach That Is Fast and Accurate. Journal of Chemical Theory and Computation, 2015, 11, 1928-1938.	2.3	34
28	Ligand-modulated interactions between charged monolayer-protected Au₁₄₄(SR)₆₀ gold nanoparticles in physiological saline. Physical Chemistry Chemical Physics, 2015, 17, 3680-3688.	1.3	17
29	Computing membrane-AQP5-phosphatidylserine binding affinities with hybrid steered molecular dynamics approach. Molecular Membrane Biology, 2015, 32, 19-25.	2.0	4
30	Does Plasmodium falciparum have an Achilles' Heel?. Malaria Chemotherapy, Control & Elimination, 2014, 03, .	0.1	2
31	Interaction between functionalized gold nanoparticles in physiological saline. Physical Chemistry Chemical Physics, 2014, 16, 3909.	1.3	18
32	In silico study of Aquaporin V: Effects and affinity of the central pore-occluding lipid. Biophysical Chemistry, 2013, 171, 24-30.	1.5	30
33	Glycerol modulates water permeation through Escherichia coli aquaglyceroporin GlpF. Biochimica Et Biophysica Acta - Biomembranes, 2013, 1828, 1786-1793.	1.4	37
34	Glycerol inhibits water permeation through Plasmodium Falciparum aquaglyceroporin. Journal of Structural Biology, 2013, 181, 71-76.	1.3	16
35	Insights into the mechanisms of the selectivity filter of Escherichia coli aquaporin Z. Journal of Molecular Modeling, 2012, 18, 3731-3741.	0.8	10
36	Mercury inhibits the L170C mutant of aquaporin Z by making waters clog the water channel. Biophysical Chemistry, 2012, 160, 69-74.	1.5	19

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37	Exploring the free-energy landscapes of biological systems with steered molecular dynamics. Physical Chemistry Chemical Physics, 2011, 13, 6176.	1.3	34
38	Interaction of a two-transmembrane-helix peptide with lipid bilayers and dodecyl sulfate micelles. Biophysical Chemistry, 2011, 159, 321-327.	1.5	7
39	Insights into scFv:drug binding using the molecular dynamics simulation and free energy calculation. Journal of Molecular Modeling, 2011, 17, 1919-1926.	0.8	12
40	Diffusion in periodic potentials with path integral hyperdynamics. Physical Review E, 2011, 84, 026703.	0.8	5
41	In silico experiments of single-chain antibody fragment against drugs of abuse. Biophysical Chemistry, 2010, 153, 97-103.	1.5	5
42	Free-energy landscape of glycerol permeation through aquaglyceroporin GlpF determined from steered molecular dynamics simulations. Biophysical Chemistry, 2010, 151, 178-180.	1.5	9
43	Determination of equilibrium free energy from nonequilibrium work measurements. Physical Chemistry Chemical Physics, 2010, 12, 6579.	1.3	26
44	Response to â€œComment on â€˜On the Crooks fluctuation theorem and the Jaraynski equalityâ€™ and â€˜Nonequilibrium fluctuation dissipation theorem of Brownian dynamicsâ€™ [J. Chem. Phys. 130, 107101 (2009)]â€. Journal of Chemical Physics, 2009, 130, 107102.	1.2	3
45	Nonequilibrium fluctuation-dissipation theorem of Brownian dynamics. Journal of Chemical Physics, 2008, 129, 144113.	1.2	44
46	On the Crooks fluctuation theorem and the Jarzynski equality. Journal of Chemical Physics, 2008, 129, 091101.	1.2	15
47	STUDY OF LENNARD-JONES CLUSTERS: EFFECTS OF ANHARMONICITIES FAR FROM SADDLE POINTS. International Journal of High Speed Electronics and Systems, 2008, 18, 119-126.	0.3	0
48	An exact formulation of hyperdynamics simulations. Journal of Chemical Physics, 2007, 126, 224103.	1.2	15
49	Dielectric response of a planar periodic array of polarizable wires parallel to an interface with a nonlocal dynamic plasma-like medium. Physics Letters, Section A: General, Atomic and Solid State Physics, 2007, 361, 164-166.	0.9	2
50	Factorization of the constants of motion. Canadian Journal of Physics, 2006, 84, 717-722.	0.4	0
51	Inverse dielectric function of a lateral quantum wire superlattice parallel to the interface of a plasma-like semiconductor. Physical Review B, 2006, 74, .	1.1	2
52	Transition rate prefactors for systems of many degrees of freedom. Journal of Chemical Physics, 2006, 124, 164102.	1.2	5
53	Efficient transition path sampling for systems with multiple reaction pathways. Journal of Chemical Physics, 2005, 123, 094104.	1.2	5
54	Path integral approach to Brownian motion driven with an ac force. Journal of Chemical Physics, 2004, 121, 3984-3988.	1.2	4

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55	Transient response of a Brownian particle with general damping. Journal of Chemical Physics, 2004, 120, 3348-3352.	1.2	4
56	TRANSIENT BROWNIAN MOTION IN RESPONSE TO A SUDDEN CHANGE OF TEMPERATURE. International Journal of Modern Physics B, 2004, 18, 2141-2151.	1.0	1
57	Transition path sampling with a one-point boundary scheme. Journal of Chemical Physics, 2003, 119, 12749-12752.	1.2	10
58	Finding transition paths and rate coefficients through accelerated Langevin dynamics. Physical Review E, 2002, 65, 042101.	0.8	21
59	Magnetoimage effects in the van der Waals interaction of an atom and a bounded, dynamic, nonlocal plasmalike medium. Physical Review A, 2002, 66, .	1.0	8
60	BROWNIAN MOTION IN A TWO-DIMENSIONAL POTENTIAL: A NEW NUMERICAL SOLUTION METHOD. International Journal of Modern Physics B, 2002, 16, 3643-3654.	1.0	8
61	THE KRAMERS PROBLEM REVISITED: A MINIMAL PATH APPROXIMATION TO THE LANGEVIN EQUATION. Modern Physics Letters B, 2000, 14, 975-982.	1.0	0
62	Solution of the Langevin equation for rare event rates using a path-integral formalism. Physical Review B, 1999, 60, 16965-16971.	1.1	19
63	Chaotic Behavior in a Dynamic System Related to the Stationary Path of the Path-Integral for a Brownian Particle in a Double-Well Potential. Modern Physics Letters B, 1998, 12, 1075-1080.	1.0	1
64	Determination of the Na/Cu(001) Potential Energy Surface from Helium Scattering Studies of the Surface Dynamics. Physical Review Letters, 1997, 78, 3900-3903.	2.9	61
65	Experimental and theoretical investigation of the microscopic vibrational and diffusional dynamics of sodium atoms on a Cu(001) surface. Physical Review B, 1997, 56, 10567-10578.	1.1	67
66	Landauer Approach to Time-Dependent Transport. Modern Physics Letters B, 1997, 11, 35-45.	1.0	2
67	Efficient Finite Difference Solutions to the Time-Dependent SchrÃ¶dinger Equation. Journal of Computational Physics, 1997, 130, 266-268.	1.9	16
68	Surface diffusion in the low-friction limit: Occurrence of long jumps. Physical Review B, 1996, 54, 8856-8861.	1.1	74
69	SHOT NOISE SUPPRESSION IN QUANTUM POINT CONTACT STRUCTURES. Modern Physics Letters B, 1995, 09, 573-583.	1.0	4
70	DIFFUSION OF LIGHT ADATOMS ON SOLID SURFACES. Modern Physics Letters B, 1995, 09, 307-318.	1.0	1
71	Frequency response of mesoscopic conductors: a time-dependent Landauer approach. Journal of Physics Condensed Matter, 1994, 6, 5061-5068.	0.7	3
72	Dynamics of adatoms on solid surfaces. Physical Review B, 1994, 49, 13838-13847.	1.1	32

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73	Theory of Surface Diffusion: Crossover from Classical to Quantum Regime. Physical Review Letters, 1994, 73, 700-703.	2.9	27
74	Vibrational lineshape and diffusion constant of adsorbed atoms. Journal of Electron Spectroscopy and Related Phenomena, 1993, 64-65, 797-802.	0.8	3
75	Diffusion and vibration of adatoms on a solid surface. Physical Review Letters, 1993, 71, 4361-4364.	2.9	60
76	Charge accumulation and frequency characteristics of sequential tunneling. Physical Review B, 1993, 48, 4914-4916.	1.1	8
77	Nonequilibrium Greenâ€™s Function Approach to Dynamic Properties of Resonant-Tunneling through Double-Barrier Structures. International Journal of Modern Physics B, 1992, 06, 1099-1118.	1.0	0
78	Noise characteristics of sequential tunneling through double-barrier junctions. Physical Review B, 1992, 46, 4714-4717.	1.1	54
79	Impurity Resistivity under Thermalized Condition. International Journal of Modern Physics B, 1992, 06, 1079-1098.	1.0	1
80	Theoretical investigation of noise characteristics of double-barrier resonant-tunneling systems. Physical Review B, 1991, 43, 4534-4537.	1.1	127
81	MONTE CARLO APPROACH TO THE QUANTUM ORIGIN OF SHOT NOISE SUPPRESSION IN TRANSPORT THROUGH MICROSTRUCTURES. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 1991, 10, 539-545.	0.5	0
82	QUANTUM EFFECT ON SHOT NOISE SUPPRESSION IN TRANSPORT THROUGH MICROSTRUCTURES. Modern Physics Letters B, 1991, 05, 315-322.	1.0	5
83	Coulomb staircase in theI-Vcharacteristic of an ultrasmall double-barrier resonant-tunneling structure. Physical Review B, 1991, 44, 5916-5918.	1.1	47
84	Dynamic properties of double-barrier resonant-tunneling structures. Physical Review B, 1991, 43, 2097-2105.	1.1	61
85	Adiabatic resistivity from the force balance equation. Solid State Communications, 1990, 73, 437-440.	0.9	5
86	Path-integral approach to transient transport of a double-barrier resonant-tunneling system. Physical Review B, 1990, 41, 8533-8536.	1.1	27
87	ac conductance of a double-barrier resonant tunneling system under a dc-bias voltage. Physical Review Letters, 1990, 64, 3159-3162.	2.9	72
88	Consistent derivation of impurity resistivity from the force-balance equation. Physical Review B, 1990, 42, 1129-1141.	1.1	7
89	EQUIVALENCE OF QUANTUM BOLTZMANN EQUATION AND KUBO FORMULA FOR dc CONDUCTIVITY. International Journal of Modern Physics B, 1990, 04, 293-315.	1.0	3
90	Effect of inelastic scattering on impurity resistivity. Physical Review B, 1989, 40, 3756-3765.	1.1	11

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91	Quantum Boltzmann equation and Kubo formula for electronic transport in solids. Physical Review B, 1989, 40, 9309-9311.	1.1	21
92	Consistent treatment for a single electron in a thermal crystal with an applied electric field. Physical Review B, 1988, 38, 3866-3878.	1.1	10
93	Consistent Path-Integral Study for a Single Electron in a Thermal Crystal with an Applied Electric Field. Physical Review Letters, 1988, 60, 2323-2326.	2.9	10
94	Influence functional and closed-time-path Green's function. Physical Review B, 1988, 37, 9810-9812.	1.1	81
95	Nonperturbative balance equations for the nonequilibrium electron-phonon-impurity system in an applied high electric field. Physical Review B, 1987, 35, 9744-9753.	1.1	11