Yongcheng Zhou

List of Publications by Year
in descending order

23 papers	1,125 citations	687363 13 h-index	677142 22 g-index
23 all docs	23 docs citations	23 times ranked	661 citing authors

#	Article	IF	Citations
1	High order matched interface and boundary method for elliptic equations with discontinuous coefficients and singular sources. Journal of Computational Physics, 2006, 213, 1-30.	3.8	287
2	Matched interface and boundary (MIB) method for elliptic problems with sharp-edged interfaces. Journal of Computational Physics, 2007, 224, 729-756.	3.8	143
3	Poissonâ€“Nernstâ€“Planck equations for simulating biomolecular diffusionâ€“reaction processes I: Finite element solutions. Journal of Computational Physics, 2010, 229, 6979-6994.	3.8	119
4	Poisson-Nernst-Planck Equations for Simulating Biomolecular Diffusion-Reaction Processes II: Size Effects on Ionic Distributions andÂDiffusion-Reaction Rates. Biophysical Journal, 2011, 100, 2475-2485.	0.5	108
5	On the fictitious-domain and interpolation formulations of the matched interface and boundary (MIB) method. Journal of Computational Physics, 2006, 219, 228-246.	3.8	107
6	Highly accurate biomolecular electrostatics in continuum dielectric environments. Journal of Computational Chemistry, 2008, 29, 87-97.	3.3	98
7	Comparison of the discrete singular convolution algorithm and the Fourier pseudospectral method for solving partial differential equations. Computer Physics Communications, 2002, 143, 113-135.	7.5	55
8	Adaptive Finite Element Modeling Techniques for the Poisson-Boltzmann Equation. Communications in Computational Physics, 2012, 11, 179-214.	1.7	45
9	Continuum Simulations of Acetylcholine Consumption by Acetylcholinesterase:â€‰ A Poissonâ^'Nernstâ^'Planck Approach. Journal of Physical Chemistry B, 2008, 112, 270-275.	2.6	34
10	High resolution conjugate filters for the simulation of flows. Journal of Computational Physics, 2003, 189, 159-179.	3.8	29
11	A matched interface and boundary method for solving multi-flow Navierâ€“Stokes equations with applications to geodynamics. Journal of Computational Physics, 2012, 231, 223-242.	3.8	23
12	Continuum electromechanical modeling of protein-membrane interactions. Physical Review E, 2010, 82, 041923.	2.1	20
13	A nonlinear elasticity model of macromolecular conformational change induced by electrostatic forces. Journal of Mathematical Analysis and Applications, 2008, 340, 135-164.	1.0	14
14	Curvature-Driven Molecular Flow on Membrane Surface. SIAM Journal on Applied Mathematics, 2017, 77, 1587-1605.	1.8	9
15	Electrodiffusion of lipids on membrane surfaces. Journal of Chemical Physics, 2012, 136, 205103.	3.0	8
16	Electrostatic Forces on Charged Surfaces of Bilayer Lipid Membranes. SIAM Journal on Applied Mathematics, 2014, 74, 1-21.	1.8	8
17	Geodesic curvature driven surface microdomain formation. Journal of Computational Physics, 2017, 345, 260-274.	3.8	8
18	Interface solutions of partial differential equations with point singularity. Journal of Computational and Applied Mathematics, 2019, 362, 400-409.	2.0	4

#	Article	IF	Citations
19	On Curvature Driven Rotational Diffusion of Proteins on Membrane Surfaces. SIAM Journal on Applied Mathematics, 2020, 80, 359-381.	1.8	2
20	Fast Simulation of Lipid Vesicle Deformation Using Spherical Harmonic Approximation. Communications in Computational Physics, 2017, 21, 40-64.	1.7	1
21	Enriched gradient recovery for interface solutions of the Poisson-Boltzmann equation. Journal of Computational Physics, 2020, 421, 109725.	3.8	1
22	A computational model of protein induced membrane morphology with geodesic curvature driven protein-membrane interface. Journal of Computational Physics, 2020, 422, 109755.	3.8	1
23	Variational Methods for Biomolecular Modeling. Molecular Modeling and Simulation, 2017, , 181-221.	0.2	1