Robert Eisenberg

List of Publications by Year
in descending order

243	10,471	18482 62	40979 93
papers	citations	h-index	g-index

258	258	258	3650
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Meeting Doug Henderson. Journal of Molecular Liquids, 2022, 361, 119574.	4.9	3
2	Maxwell Equations without a Polarization Field, Using a Paradigm from Biophysics. Entropy, 2021, 23, 172.	2.2	6
3	Multiscale modeling shows that dielectric differences make NaV channels faster than KV channels. Journal of General Physiology, 2021, 153, .	1.9	11
4	Optic nerve microcirculation: Fluid flow and electrodiffusion. Physics of Fluids, 2021, 33, .	4.0	6
5	A tridomain model for potassium clearance in optic nerve of Necturus. Biophysical Journal, 2021, 120, 3008-3027.	0.5	7
6	Gating current noise produced by Brownian models of a voltage sensor. Biophysical Journal, 2021, 120, 3983-4001.	0.5	7
7	On the polarization of ligands by proteins. Physical Chemistry Chemical Physics, 2020, 22, 12044-12057.	2.8	8
8	Molecular Mean-Field Theory of Ionic Solutions: A Poisson-Nernst-Planck-Bikerman Model. Entropy, 2020, 22, 550.	2.2	40
9	Effects of Diffusion Coefficients and Permanent Charge on Reversal Potentials in Ionic Channels. Entropy, 2020, 22, 325.	2.2	13
10	Energetic Controls Are Essential. Biophysical Journal, 2020, 118, 1240-1242.	0.5	0
11	Field theory of reaction-diffusion: Law of mass action with an energetic variational approach. Physical Review E, 2020, 102, 062147.	2.1	21
12	An effect of large permanent charge: decreasing flux with increasing transmembrane potential. European Physical Journal: Special Topics, 2019, 227, 2575-2601.	2.6	16
13	A Bidomain Model for Lens Microcirculation. Biophysical Journal, 2019, 116, 1171-1184.	0.5	15
14	Continuum Gating Current Models Computed withÂConsistent Interactions. Biophysical Journal, 2019, 116, 270-282.	0.5	21
15	Quasi-incompressible multi-species ionic fluid models. Journal of Molecular Liquids, 2019, 273, 677-691.	4.9	1
16	Flux Ratios and Channel Structures. Journal of Dynamics and Differential Equations, 2019, 31, 1141-1183.	1.9	23
17	Poisson-Fermi modeling of ion activities in aqueous single and mixed electrolyte solutions at variable temperature. Journal of Chemical Physics, 2018, 148, 054501.	3.0	13
18	Asking biological questions of physical systems: The device approach to emergent properties. Journal of Molecular Liquids, 2018, 270, 212-217.	4.9	11

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19	Brilliant Stimulation, One Cell at a Time. Biophysical Journal, 2018, 114, 256-258.	0.5	0
20	Do Bistable Steric Poissonâ€“Nernstâ€“Planck Models Describe Single-Channel Gating?. Journal of Physical Chemistry B, 2018, 122, 5183-5192.	2.6	8
21	Poisson-Fermi Formulation of Nonlocal Electrostatics in Electrolyte Solutions. Computational and Mathematical Biophysics, 2017, 5, 116-124.	1.1	7
22	Relative dielectric constants and selectivity ratios in open ionic channels. Computational and Mathematical Biophysics, 2017, 5, 125-137.	1.1	7
23	Dynamics of Current, Charge and Mass. Computational and Mathematical Biophysics, 2017, 5, 78-115.	1.1	11
24	Ionic Coulomb blockade and anomalous mole fraction effect in the NaChBac bacterial ion channel and its charge-varied mutants. EPJ Nonlinear Biomedical Physics, 2017, 5, 4.	0.8	6
25	Gating Current Models Computed with Consistent Interactions. Biophysical Journal, 2016, 110, 102a-103a.	0.5	3
26	Binding Sites of the Ca/Na Exchanger NCX Analyzed with Poisson Fermi Theory. Biophysical Journal, 2016, 110, 260a.	0.5	0
27	Putative resolution of the EEEE selectivity paradox in L-type Ca²⁺and bacterial Na⁺biological ion channels. Journal of Statistical Mechanics: Theory and Experiment, 2016, 2016, 054027.	2.3	5
28	Nonlocal Poisson-Fermi model for ionic solvent. Physical Review E, 2016, 94, 012114.	2.1	11
29	Mass Action and Conservation of Current. Hungarian Journal of Industrial Chemistry, 2016, 44, 1-28.	0.3	8
30	Poissonâ€“Fermi Modeling of the Ion Exchange Mechanism of the Sodium/Calcium Exchanger. Journal of Physical Chemistry B, 2016, 120, 2658-2669.	2.6	13
31	Numerical methods for a Poisson-Nernst-Planck-Fermi model of biological ion channels. Physical Review E, 2015, 92, 012711.	2.1	29
32	Rate Constant Models cannot Describe Movement of Charged Atoms orÂMolecules. Biophysical Journal, 2015, 108, 577a.	0.5	0
33	Coulomb blockade oscillations in biological ion channels. , 2015, , .		4
34	Coulomb blockade model of permeation and selectivity in biological ion channels. New Journal of Physics, 2015, 17, 083021.	2.9	44
35	Reversal permanent charge and reversal potential: case studies via classical Poissonâ€“Nernstâ€“Planck models. Nonlinearity, 2015, 28, 103-127.	1.4	35
36	Poissonâ€“Fermi model of single ion activities in aqueous solutions. Chemical Physics Letters, 2015, 637, 1-6.	2.6	42

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37	Multiple solutions of steady-state Poissonâ€“Nernstâ€“Planck equations with steric effects. Nonlinearity, 2015, 28, 2053-2080.	1.4	22
38	Energetics of ion competition in the DEKA selectivity filter of neuronal sodium channels. Condensed Matter Physics, 2015, 18, 13601.	0.7	3
39	Analytical models of calcium binding in a calcium channel. Journal of Chemical Physics, 2014, 141, 075102.	3.0	19
40	Poisson-Nernst-Planck-Fermi theory for modeling biological ion channels. Journal of Chemical Physics, 2014, 141, 22D532.	3.0	63
41	A conservative finite difference scheme for Poissonâ€“Nernstâ€“Planck equations. Journal of Computational Electronics, 2014, 13, 235-249.	2.5	49
42	An energetic variational approach to ion channel dynamics. Mathematical Methods in the Applied Sciences, 2014, 37, 952-961.	2.3	8
43	Three-Dimensional Brownian Dynamics Simulator for the Study of Ion Permeation through Membrane Pores. Journal of Chemical Theory and Computation, 2014, 10, 2911-2926.	5.3	33
44	Poisson-Fermi Model of a Calcium Channel: Correlations and Dielectric Coefficient are Computed Outputs. Biophysical Journal, 2014, 106, 133a-134a.	0.5	0
45	Ion Channels, Natural Nanovalves. , 2014, , 1089-1093.		1
46	A new approach to the Lennard-Jones potential and a new model: PNP-steric equations. Communications in Mathematical Sciences, 2014, 12, 149-173.	1.0	42
47	Calculating Minimal Energy Shapes of Fusion Pores. Biophysical Journal, 2013, 104, 91a-92a.	0.5	0
48	Steric PNP (Poisson-Nernst-Planck): Ions in Channels. Biophysical Journal, 2013, 104, 509a.	0.5	3
49	Discrete Conductance Levels in Calcium Channel Models: Multiband Calcium Selective Conduction. Biophysical Journal, 2013, 104, 358a.	0.5	1
50	A parallel finite element simulator for ion transport through threeâ€dimensional ion channel systems. Journal of Computational Chemistry, 2013, 34, 2065-2078.	3.3	38
51	Correlated Ions in a Calcium Channel Model: A Poissonâ€“Fermi Theory. Journal of Physical Chemistry B, 2013, 117, 12051-12058.	2.6	40
52	Ion Permeation in the NanC Porin from Escherichia coli: Free Energy Calculations along Pathways Identified by Coarse-Grain Simulations. Journal of Physical Chemistry B, 2013, 117, 13534-13542.	2.6	6
53	Resonant multi-ion conduction in a simple model of calcium channels. , 2013, , .		3
54	Stochastic dynamics of remote knock-on permeation in biological ion channels. , 2013, , .		3

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55	Brownian Dynamics Study of Current and Selectivity of Calcium Channels. Biophysical Journal, 2013, 104, 102a-103a.	0.5	0
56	Ionic interactions in biological and physical systems: a variational treatment. Faraday Discussions, 2013, 160, 279-296.	3.2	14
57	Ionic Interactions Are Everywhere. Physiology, 2013, 28, 28-38.	3.1	30
58	Interacting Ions in Biophysics: Real is not Ideal. Biophysical Journal, 2013, 104, 1849-1866.	0.5	46
59	Localizing the Charged Side Chains of Ion Channels within the Crowded Charge Models. Journal of Chemical Theory and Computation, 2013, 9, 766-773.	5.3	7
60	Electrostatic effects in living cells. Physics Today, 2013, 66, 10-11.	0.3	0
61	Self-organized enhancement of conductivity in biological ion channels. New Journal of Physics, 2013, 15, 103005.	2.9	3
62	Energetics of discrete selectivity bands and mutation-induced transitions in the calcium-sodium ion channels family. Physical Review E, 2013, 88, 052712.	2.1	16
63	Multi-ion conduction bands in a simple model of calcium ion channels. Physical Biology, 2013, 10, 026007.	1.8	23
64	NONEQUILIBRIUM RATE THEORY FOR CONDUCTION IN OPEN ION CHANNELS. Fluctuation and Noise Letters, 2012, 11, 1240016.	1.5	7
65	Comparison of three-dimensional Poisson solution methods for particle-based simulation and inhomogeneous dielectrics. Physical Review E, 2012, 86, 011912.	2.1	22
66	Rate Constants are Variables in Almost all Chemical Reactions. Biophysical Journal, 2012, 102, 270a.	0.5	0
67	A Dynamic Model of Fusion Pores in Lipid Bilayers. Biophysical Journal, 2012, 102, 500a-501a.	0.5	0
68	Brownian Dynamics Simulation of Calcium Channels. Biophysical Journal, 2012, 102, 173a.	0.5	1
69	PNP Equations with Steric Effects: A Model of Ion Flow through Channels. Journal of Physical Chemistry B, 2012, 116, 11422-11441.	2.6	146
70	IONS IN FLUCTUATING CHANNELS: TRANSISTORS ALIVE. Fluctuation and Noise Letters, 2012, 11, 1240001.	1.5	31
71	Ionizable side chains at catalytic active sites of enzymes. European Biophysics Journal, 2012, 41, 449-460.	2.2	25
72	Particle-based simulation of charge transport in discrete-charge nano-scale systems: the electrostatic problem. Nanoscale Research Letters, 2012, 7, 135.	5.7	1

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73	Single-channel measurements of an N-acetylneuraminic acid-inducible outer membrane channel in Escherichia coli. European Biophysics Journal, 2012, 41, 259-271.	2.2	9
74	Energy variational approach to study charge inversion (layering) near charged walls. Discrete and Continuous Dynamical Systems - Series B, 2012, 17, 2725-2743.	0.9	43
75	A dynamic model of open vesicles in fluids. Communications in Mathematical Sciences, 2012, 10, 1273-1285.	1.0	12
76	Particle-based simulation of electrical transport in discrete-charge nanoscale systems: The electrostatic problem. , 2011, , .		0
77	A New Poisson-Nernst-Planck Equation (PNP-FS-IF) for Charge Inversion Near Walls. Biophysical Journal, 2011, 100, 578a.	0.5	16
78	A Continuum Variational Approach to Vesicle Membrane Modeling. Biophysical Journal, 2011, 100, 187a.	0.5	0
79	Active Sites of Enzymes are Crowded with Charge. Biophysical Journal, 2011, 100, 218a.	0.5	4
80	A novel Brownian-Dynamics Algorithm for the Simulation of Ion Conduction Through Membrane Pores. Biophysical Journal, 2011, 100, 158a.	0.5	1
81	Single Channel Measurements of N-Acetylneuraminic Acid-Inducible Channel (NANC) in E. coli. Biophysical Journal, 2011, 100, 579a.	0.5	0
82	Sialic Acid Transport in E. coli: Role of Outer Membrane Porin NanC. Biophysical Journal, 2011, 100, 577a.	0.5	0
83	A model of electrodiffusion and osmotic water flow and its energetic structure. Physica D: Nonlinear Phenomena, 2011, 240, 1835-1852.	2.8	38
84	Selectivity sequences in a model calcium channel: role of electrostatic field strength. European Biophysics Journal, 2011, 40, 775-782.	2.2	26
85	Mass action in ionic solutions. Chemical Physics Letters, 2011, 511, 1-6.	2.6	32
86	Analyzing the components of the free-energy landscape in a calcium selective ion channel by Widom's particle insertion method. Journal of Chemical Physics, 2011, 134, 055102.	3.0	37
87	A method for treating the passage of a charged hard sphere ion as it passes through a sharp dielectric boundary. Journal of Chemical Physics, 2011, 135, 064105.	3.0	17
88	Self-organized models of selectivity in calcium channels. Physical Biology, 2011, 8, 026004.	1.8	23
89	A mathematical model for the hard sphere repulsion in ionic solutions. Communications in Mathematical Sciences, 2011, 9, 459-475.	1.0	81
90	Monte Carlo Simulation of Free Energy Components: Energetics of Selective Binding in a Reduced Model of L-Type Ca Channels. Biophysical Journal, 2010, 98, 514a-515a.	0.5	0

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91	On the Domain of Applicability of Currently used Force Fields for the Calculation of the Activity of Alkali Ions at Physiological Ionic Strength. Biophysical Journal, 2010, 98, 330a-331a.	0.5	1
92	A Multidomain Model For Electrodiffusion and Water Flow. Biophysical Journal, 2010, 98, 96a.	0.5	1
93	Conductance and Concentration Relationship in a Reduced Model ofÂthe KÂChannel. Biophysical Journal, 2010, 98, 117a.	0.5	1
94	Multiple Scales in the Simulation of Ion Channels and Proteins. Journal of Physical Chemistry C, 2010, 114, 20719-20733.	3.1	35
95	Molecular Dynamics in Physiological Solutions: Force Fields, Alkali Metal Ions, and Ionic Strength. Journal of Chemical Theory and Computation, 2010, 6, 2167-2175.	5.3	56
96	Energetic Variational Analysis EnVarA of Ions in Calcium and Sodium Channels. Biophysical Journal, 2010, 98, 515a.	0.5	8
97	An efficient algorithm for classical density functional theory in three dimensions: Ionic solutions. Journal of Chemical Physics, 2010, 132, 124101.	3.0	61
98	Energy variational analysis of ions in water and channels: Field theory for primitive models of complex ionic fluids. Journal of Chemical Physics, 2010, 133, 104104.	3.0	170
99	Discretization of the induced-charge boundary integral equation. Physical Review E, 2009, 80, 011906.	2.1	24
100	Self-consistent analytic solution for the current and the access resistance in open ion channels. Physical Review E, 2009, 80, 021925.	2.1	28
101	Charge Fluctuations and Boundary Conditions of Biological Ion Channels: Effect on the Ionic Transition Rate. , 2009, , .		0
102	Ionic selectivity in L-type calcium channels by electrostatics and hard-core repulsion. Journal of General Physiology, 2009, 133, 497-509.	1.9	76
103	Protein structure and ionic selectivity in calcium channels: Selectivity filter size, not shape, matters. Biochimica Et Biophysica Acta - Biomembranes, 2009, 1788, 2471-2480.	2.6	42
104	Ions and Inhibitors in the Binding Site of HIV Protease: Comparison ofÂMonte Carlo Simulations and the Linearized Poisson-Boltzmann Theory. Biophysical Journal, 2009, 96, 1293-1306.	0.5	15
105	Tuning Transport Properties of Nanofluidic Devices with Local Charge Inversion. Journal of the American Chemical Society, 2009, 131, 5194-5202.	13.7	246
106	Self-organized Models of Selectivity in Ca and Na Channels. Biophysical Journal, 2009, 96, 253a.	0.5	3
107	Energetics of Calcium Selectivity: A Three-Dimensional Classical Density Functional Theory Approach. Biophysical Journal, 2009, 96, 661a.	0.5	0
108	Charge fluctuations and their effect on conduction in biological ion channels. Journal of Statistical Mechanics: Theory and Experiment, 2009, 2009, P01010.	2.3	7

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109	Ion channels allow atomic control of macroscopic transport. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 708-713.	0.8	6
110	Nanoprecipitation-assisted ion current oscillations. Nature Nanotechnology, 2008, 3, 51-57.	31.5	152
111	Bubbles, Gating, and Anesthetics in Ion Channels. Biophysical Journal, 2008, 94, 4282-4298.	0.5	82
112	Volume Exclusion in Calcium Selective Channels. Biophysical Journal, 2008, 94, 3486-3496.	0.5	58
113	Asymptotic Expansions of I-V Relations via a Poissonâ€"Nernstâ€"Planck System. SIAM Journal on Applied Dynamical Systems, 2008, 7, 1507-1526.	1.6	58
114	Singular perturbation analysis of the steady-state Poissonâ€"Nernstâ€"Planck system: Applications to ion channels. European Journal of Applied Mathematics, 2008, 19, 541-560.	2.9	89
115	Engineering channels: Atomic biology. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 6211-6212.	7.1	14
116	Ion channels as electrostatic amplifiers of charge fluctuations. Journal of Physics: Conference Series, 2008, 142, 012049.	0.4	7
117	Effect of charge fluctuations on the permeation of ions through biological ion channels. AIP Conference Proceedings, 2007, , .	0.4	1
118	Combined Effect of Pore Radius and Protein Dielectric Coefficient on the Selectivity of a Calcium Channel. Physical Review Letters, 2007, 98, 168102.	7.8	78
119	Self-consistent analytic solution for the current and access resistance in open ionic channels.. , 2007, , .		1
120	On selectivity and gating of ionic channels.. , 2007, , .		2
121	Inverse Problems Related to Ion Channel Selectivity. SIAM Journal on Applied Mathematics, 2007, 67, 960-989.	1.8	58
122	Poissonâ€"Nernstâ€"Planck Systems for Ion Channels with Permanent Charges. SIAM Journal on Mathematical Analysis, 2007, 38, 1932-1966.	1.9	104
123	A Biological Porin Engineered into a Molecular, Nanofluidic Diode. Nano Letters, 2007, 7, 2886-2891.	9.1	78
124	Mechanical Spikes from Nerve Terminals. Biophysical Journal, 2007, 92, 2983.	0.5	1
125	Steric Selectivity in Na Channels Arising from Protein Polarization and Mobile Side Chains. Biophysical Journal, 2007, 93, 1960-1980.	0.5	111
126	Inverse problems related to ion channels. Proceedings in Applied Mathematics and Mechanics, 2007, 7, 1120801-1120802.	0.2	5

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127	Shockley-Ramo theorem measures conformation changes of ion channels and proteins. Journal of Computational Electronics, 2007, 6, 363-365.	2.5	9
128	Integrated electrodes on a silicon based ion channel measurement platform. Biosensors and Bioelectronics, 2007, 23, 183-190.	10.1	30
129	Calcium-Induced Voltage Gating in Single Conical Nanopores. Nano Letters, 2006, 6, 1729-1734.	9.1	140
130	Negative Incremental Resistance Induced by Calcium in Asymmetric Nanopores. Nano Letters, 2006, 6, 473-477.	9.1	84
131	The effect of protein dielectric coefficient on the ionic selectivity of a calcium channel. Journal of Chemical Physics, 2006, 125, 034901.	3.0	93
132	Ca2+ Selectivity of a Chemically Modified OmpF with Reduced Pore Volume. Biophysical Journal, 2006, 91, 4392-4400.	0.5	49
133	The Simulation of Ionic Charge Transport in Biological Ion Channels: An Introduction to Numerical Methods. Reviews in Computational Chemistry, 2006, , 229-293.	1.5	20
134	The value of Einsteinâ€™s mistakes. Physics Today, 2006, 59, 12-13.	0.3	7
135	Ion Channel Conductance Measurements on a Silicon-Based Platform. Journal of Physics: Conference Series, 2006, 38, 21-24.	0.4	3
136	Narrow Escape, Part I. Journal of Statistical Physics, 2006, 122, 437-463.	1.2	125
137	Conductance and selectivity fluctuations in D127 mutants of the bacterial porin OmpF. European Biophysics Journal, 2006, 36, 13-22.	2.2	18
138	Validating the Need to Validate Code. Physics Today, 2005, 58, 13-13.	0.3	2
139	Computing numerically the access resistance of a pore. European Biophysics Journal, 2005, 34, 314-322.	2.2	45
140	Attenuation of the Electric Potential and Field in Disordered Systems. Journal of Statistical Physics, 2005, 119, 1397-1418.	1.2	9
141	The Role of Long-Range Forces in Porin Channel Conduction. Journal of Computational Electronics, 2005, 4, 175-178.	2.5	2
142	Error Analysis of the Poisson P3M Force Field Scheme for Particle-Based Simulations of Biological Systems. Journal of Computational Electronics, 2005, 4, 179-183.	2.5	3
143	Brownian dynamics simulations of ionic current through an open channel. AIP Conference Proceedings, 2005, , .	0.4	3
144	BioMOCAâ€”a Boltzmann transport Monte Carlo model for ion channel simulation. Molecular Simulation, 2005, 31, 151-171.	2.0	42

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145	Ion Channels on Silicon. E-Journal of Surface Science and Nanotechnology, 2005, 3, 184-189.	0.4	5
146	Douglas Henderson: from hard spheres to biological channels. Condensed Matter Physics, 2005, 8, 237.	0.7	0
147	Ionic diffusion through confined geometries: from Langevin equations to partial differential equations. Journal of Physics Condensed Matter, 2004, 16, S2153-S2165.	1.8	42
148	Teflonâ„¢-coated silicon apertures for supported lipid bilayer membranes. Applied Physics Letters, 2004, 85, 3307-3309.	3.3	34
149	Computing induced charges in inhomogeneous dielectric media: Application in a Monte Carlo simulation of complex ionic systems. Physical Review E, 2004, 69, 046702.	2.1	138
150	Saturation of conductance in single ion channels: The blocking effect of the near reaction field. Physical Review E, 2004, 70, 051912.	2.1	23
151	Memoryless control of boundary concentrations of diffusing particles. Physical Review E, 2004, 70, 061106.	2.1	11
152	Monte Carlo Simulation Study of a System with a Dielectric Boundary: Application to Calcium Channel Selectivity. Molecular Simulation, 2004, 30, 89-96.	2.0	35
153	Ion Channel Sensor on a Silicon Support. Materials Research Society Symposia Proceedings, 2004, 820, 158.	0.1	2
154	Electrodiffusion Model Simulation of Ionic Channels: 1D Simulations. Journal of Computational Electronics, 2004, 3, 25-31.	2.5	36
155	Permeation Properties of an Engineered Bacterial OmpF Porin Containing the EEEE-Locus of Ca2+ Channels. Biophysical Journal, 2004, 87, 3137-3147.	0.5	77
156	Relating Microscopic Charge Movement to Macroscopic Currents: The Ramo-Shockley Theorem Applied to Ion Channels. Biophysical Journal, 2004, 87, 3716-3722.	0.5	36
157	Ionic current through an open channel: a low-dimensional model of coupling with vibrations of the wall. , 2004, , .		2
158	Models of boundary behavior of particles diffusing between two concentrations. , 2004, , .		6
159	Computational Issues in Modeling Ion Transport in Biological Channels: Self-Consistent Particle-Based Simulations. Journal of Computational Electronics, 2003, 2, 239-243.	2.5	9
160	Ion Channels as Devices. Journal of Computational Electronics, 2003, 2, 245-249.	2.5	49
161	Silicon-based ion channel sensor. Superlattices and Microstructures, 2003, 34, 451-457.	3.1	22
162	Calcium Ion Permeation through the Calcium Release Channel (Ryanodine Receptor) of Cardiac Muscle. Journal of Physical Chemistry B, 2003, 107, 9139-9145.	2.6	22

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163	Why Canâ€™t Protons Move through Water Channels?. Biophysical Journal, 2003, 85, 3427-3428.	0.5	11
164	Density functional theory of charged, hard-sphere fluids. Physical Review E, 2003, 68, 031503.	2.1	159
165	Dielectric boundary force and its crucial role in gramicidin. Physical Review E, 2003, 68, 021905.	2.1	61
166	A PDE Formulation of Non-Equilibrium Statistical Mechanics for Ionic Permeation. AIP Conference Proceedings, 2003, , .	0.4	1
167	Coupling PoissonÂNernstÂPlanck and density functional theory to calculate ion flux. Journal of Physics Condensed Matter, 2002, 14, 12129-12145.	1.8	238
168	Concentration-Dependent Shielding of Electrostatic Potentials Inside the Gramicidin A Channels. Langmuir, 2002, 18, 3626-3631.	3.5	14
169	Monte Carlo simulations of ion selectivity in a biological Na channel: Chargeâ€“space competition. Physical Chemistry Chemical Physics, 2002, 4, 5154-5160.	2.8	83
170	A physical mechanism for large-ion selectivity of ion channels. Physical Chemistry Chemical Physics, 2002, 4, 4763-4769.	2.8	32
171	Electrodiffusion Model Simulation of Rectangular Current Pulses in a Voltage-Biased Biological Channel. Journal of Theoretical Biology, 2002, 219, 291-299.	1.7	7
172	Physical descriptions of experimental selectivity measurements in ion channels. European Biophysics Journal, 2002, 31, 454-466.	2.2	78
173	Proteins, channels and crowded ions. Biophysical Chemistry, 2002, 100, 507-517.	2.8	84
174	Ionic Channels as Natural Nanodevices. Journal of Computational Electronics, 2002, 1, 331-333.	2.5	8
175	Electrodiffusion Model Simulation of Rectangular Current Pulses in a Biological Channel. Journal of Computational Electronics, 2002, 1, 347-351.	2.5	2
176	Title is missing!. Journal of Computational Electronics, 2002, 1, 335-340.	2.5	23
177	Ion Accumulation in a Biological Calcium Channel:Â Effects of Solvent and Confining Pressure. Journal of Physical Chemistry B, 2001, 105, 6427-6436.	2.6	97
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181	Electrodiffusion in ionic channels of biological membranes. Journal of Molecular Liquids, 2000, 87, 149-162.	4.9	50
182	Binding and Selectivity in L-Type Calcium Channels:A Mean Spherical Approximation. Biophysical Journal, 2000, 79, 1976-1992.	0.5	208
183	Electrodiffusion Model of Rectangular Current Pulses in Ionic Channels of Cellular Membranes. SIAM Journal on Applied Mathematics, 2000, 61, 792-802.	1.8	8
184	Predicting Function from Structure Using the Poissonâ˘'Nernstâ˘'Planck Equations:Â Sodium Current in the Gramicidin A Channel. Langmuir, 2000, 16, 5509-5514.	3.5	68
185	Progress and Prospects in Permeation. Journal of General Physiology, 1999, 113, 773-782.	1.9	119
186	Selectivity and Permeation in Calcium Release Channel of Cardiac Muscle: Alkali Metal Ions. Biophysical Journal, 1999, 76, 1346-1366.	0.5	59
187	Ionic Channels in Biological Membranes:â€‰ Natural Nanotubes. Accounts of Chemical Research, 1998, 31, 117-123.	15.6	141
188	Ionic channels in biological membranes- electrostatic analysis of a natural nanotube. Contemporary Physics, 1998, 39, 447-466.	1.8	83
189	Ion Permeation and Glutamate Residues Linked by Poisson-Nernst-Planck Theory in L-Type Calcium Channels. Biophysical Journal, 1998, 75, 1287-1305.	0.5	255
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193	Permeation through an open channel: Poisson-Nernst-Planck theory of a synthetic ionic channel. Biophysical Journal, 1997, 72, 97-116.	0.5	179
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