

Ronald J Clarke

List of Publications by Year in descending order

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111
papers

3,543
citations

126907

33
h-index

161849

54
g-index

120
all docs

120
docs citations

120
times ranked

3349
citing authors

#	ARTICLE	IF	CITATIONS
1	The dipole potential of phospholipid membranes and methods for its detection. <i>Advances in Colloid and Interface Science</i> , 2001, 89-90, 263-281.	14.7	234
2	Influence of Anions and Cations on the Dipole Potential of Phosphatidylcholine Vesicles: A Basis for the Hofmeister Effect. <i>Biophysical Journal</i> , 1999, 76, 2614-2624.	0.5	198
3	Inclusion Complexes of the Cyclomalto-Oligosaccharides (Cyclodextrins). <i>Advances in Carbohydrate Chemistry and Biochemistry</i> , 1988, 46, 205-249.	0.9	172
4	Cholesterol Effect on the Dipole Potential of Lipid Membranes. <i>Biophysical Journal</i> , 2006, 90, 4060-4070.	0.5	134
5	Optical detection of membrane dipole potential: avoidance of fluidity and dye-induced effects. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1997, 1323, 223-239.	2.6	129
6	Mechanisms of cell uptake and toxicity of the anticancer drug cisplatin. <i>Metallomics</i> , 2014, 6, 2126-2133.	2.4	123
7	Effect of lipid structure on the dipole potential of phosphatidylcholine bilayers. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1997, 1327, 269-278.	2.6	116
8	Hydrophobic Ion Hydration and the Magnitude of the Dipole Potential. <i>Biophysical Journal</i> , 2002, 82, 3081-3088.	0.5	78
9	Volumetric, viscosimetric and surface properties of aqueous solutions of triethylene glycol, tetraethylene glycol, and tetraethylene glycol dimethyl ether. <i>Journal of Molecular Liquids</i> , 2013, 177, 11-18.	4.9	69
10	Mechanism of Cytotoxicity and Cellular Uptake of Lipophilic Inert Dinuclear Polypyridylruthenium(II) Complexes. <i>ChemMedChem</i> , 2011, 6, 848-858.	3.2	66
11	Stopped-Flow Kinetic Investigations of Conformational Changes of Pig Kidney Na ⁺ ,K ⁺ -ATPase. <i>Biochemistry</i> , 1997, 36, 13406-13420.	2.5	62
12	Electric field strength of membrane lipids from vertebrate species: membrane lipid composition and Na ⁺ -K ⁺ -ATPase molecular activity. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2005, 288, R663-R670.	1.8	61
13	Peptide Ligation at High Dilution via Reductive Diselenide-Selenoester Ligation. <i>Journal of the American Chemical Society</i> , 2020, 142, 1090-1100.	13.7	61
14	Physiological roles of transverse lipid asymmetry of animal membranes. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2020, 1862, 183382.	2.6	60
15	Effect of headgroup on the dipole potential of phospholipid vesicles. <i>European Biophysics Journal</i> , 2009, 39, 103-110.	2.2	58
16	Rate Limitation of the Na ⁺ ,K ⁺ -ATPase Pump Cycle. <i>Biophysical Journal</i> , 2001, 81, 2069-2081.	0.5	57
17	Mg ²⁺ -Induced tRNA Folding. <i>Biochemistry</i> , 2001, 40, 6688-6698.	2.5	57
18	Voltage sensitivity of the fluorescent probe RH421 in a model membrane system. <i>Biophysical Journal</i> , 1995, 68, 1406-1415.	0.5	53

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19	Potassium-activated GTPase Reaction in the G Protein-coupled Ferrous Iron Transporter B. <i>Journal of Biological Chemistry</i> , 2010, 285, 14594-14602.	3.4	51
20	Mechanism of Action of Surface Immobilized Antimicrobial Peptides Against <i>Pseudomonas aeruginosa</i> . <i>Frontiers in Microbiology</i> , 2019, 10, 3053.	3.5	47
21	The nitric oxide donor sodium nitroprusside stimulates the Na ⁺ -K ⁺ pump in isolated rabbit cardiac myocytes. <i>Journal of Physiology</i> , 2005, 565, 815-825.	2.9	46
22	Comparison of excitation and emission ratiometric fluorescence methods for quantifying the membrane dipole potential. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2007, 1768, 107-114.	2.6	46
23	Kinetic and equilibrium studies of cyclomalto-octaose (Î ³ -cyclodextrin)-methyl orange inclusion complexes. <i>Carbohydrate Research</i> , 1984, 127, 181-191.	2.3	45
24	Kinetics of Na ⁺ -Dependent Conformational Changes of Rabbit Kidney Na ⁺ ,K ⁺ -ATPase. <i>Biophysical Journal</i> , 1998, 75, 1340-1353.	0.5	43
25	Structural basis of GDP release and gating in G protein coupled Fe ²⁺ transport. <i>EMBO Journal</i> , 2009, 28, 2677-2685.	7.8	43
26	Susceptibility of Î ²¹ Na ⁺ -K ⁺ Pump Subunit to Glutathionylation and Oxidative Inhibition Depends on Conformational State of Pump. <i>Journal of Biological Chemistry</i> , 2012, 287, 12353-12364.	3.4	43
27	P3-[2-(4-hydroxyphenyl)-2-oxo]ethyl ATP for the Rapid Activation of the Na ⁺ ,K ⁺ -ATPase. <i>Biophysical Journal</i> , 2000, 79, 1346-1357.	0.5	41
28	Time-Resolved Fluorescence Investigations of the Interaction of the Voltage-Sensitive Probe RH421 with Lipid Membranes and Proteins. <i>Biochemistry</i> , 1995, 34, 11777-11784.	2.5	40
29	Quantitative calculation of the role of the Na ⁺ ,K ⁺ -ATPase in thermogenesis. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2013, 1827, 1205-1212.	1.0	39
30	Two Gears of Pumping by the Sodium Pump. <i>Biophysical Journal</i> , 2007, 93, 4187-4196.	0.5	38
31	A stopped-flow kinetic study of the interaction of potential-sensitive oxonol dyes with lipid vesicles. <i>Biophysical Chemistry</i> , 1989, 34, 225-237.	2.8	37
32	Orientalional polarisability of lipid membrane surfaces. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2007, 1768, 562-570.	2.6	37
33	Mechanism of the Rate-Determining Step of the Na ⁺ ,K ⁺ -ATPase Pump Cycle. <i>Biochemistry</i> , 2002, 41, 9496-9507.	2.5	36
34	Allosteric Effect of ATP on Na ⁺ ,K ⁺ -ATPase Conformational Kinetics. <i>Biochemistry</i> , 2007, 46, 7034-7044.	2.5	35
35	Hofmeister Effects of Anions on the Kinetics of Partial Reactions of the Na ⁺ ,K ⁺ -ATPase. <i>Biophysical Journal</i> , 1999, 77, 267-281.	0.5	31
36	Densities, Viscosities, and Surface Tensions of the System Water + Diethylene Glycol. <i>Journal of Chemical & Engineering Data</i> , 2011, 56, 303-306.	1.9	31

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37	Dephosphorylation Kinetics of Pig Kidney Na ⁺ ,K ⁺ -ATPase. <i>Biochemistry</i> , 1998, 37, 4581-4591.	2.5	30
38	Solvent Dependence of the Photochemistry of the Styrylpyridinium Dye RH421. <i>Journal of Physical Chemistry B</i> , 2008, 112, 6513-6520.	2.6	30
39	General and specific interactions of the phospholipid bilayer with P-type ATPases. <i>Biophysical Reviews</i> , 2019, 11, 353-364.	3.2	30
40	Spectroscopic investigations of the potential-sensitive membrane probe RH421. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1992, 1112, 142-152.	2.6	29
41	Kinetics of the Solubilization of Styryl Dye Aggregates by Lipid Vesicles. <i>The Journal of Physical Chemistry</i> , 1994, 98, 1732-1738.	2.9	29
42	Alloxan-induced diabetes reduces sarcolemmal Na ⁺ -K ⁺ pump function in rabbit ventricular myocytes. <i>American Journal of Physiology - Cell Physiology</i> , 2007, 292, C1070-C1077.	4.6	29
43	Fluorescence and Light Scattering. <i>Journal of Chemical Education</i> , 2004, 81, 705.	2.3	28
44	Examination of the Photophysical Processes of Chlorophyll d Leading to a Clarification of Proposed Uphill Energy Transfer Processes in Cells of <i>Acaryochloris marina</i> . <i>Photochemistry and Photobiology</i> , 2003, 77, 628.	2.5	26
45	Interaction of N-terminal peptide analogues of the Na ⁺ ,K ⁺ -ATPase with membranes. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2018, 1860, 1282-1291.	2.6	26
46	Static and dynamic studies of the potential-sensitive membrane probe RH421 in dimyristoylphosphatidylcholine vesicles. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1993, 1153, 203-212.	2.6	25
47	Mechanism of Mg ²⁺ Binding in the Na ⁺ ,K ⁺ -ATPase. <i>Biophysical Journal</i> , 2009, 96, 3753-3761.	0.5	25
48	Cholesterol depletion inhibits Na ⁺ ,K ⁺ -ATPase activity in a near-native membrane environment. <i>Journal of Biological Chemistry</i> , 2019, 294, 5956-5969.	3.4	25
49	Mechanism of allosteric effects of ATP on the kinetics of P-type ATPases. <i>European Biophysics Journal</i> , 2009, 39, 3-17.	2.2	24
50	Redox-dependent regulation of the Na ⁺ -K ⁺ pump: New twists to an old target for treatment of heart failure. <i>Journal of Molecular and Cellular Cardiology</i> , 2013, 61, 94-101.	1.9	24
51	Pump current and Na ⁺ /K ⁺ coupling ratio of Na ⁺ /K ⁺ -ATPase in reconstituted lipid vesicles. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1989, 981, 326-336.	2.6	23
52	Investigation of the enzymatic activity of the Na ⁺ ,K ⁺ -ATPase via isothermal titration microcalorimetry. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2010, 1797, 1540-1545.	1.0	23
53	Dipole-Potential-Mediated Effects on Ion Pump Kinetics. <i>Biophysical Journal</i> , 2015, 109, 1513-1520.	0.5	23
54	Complexation of tropaeolin 000 No. 2 by β - and γ -cyclodextrin. <i>Journal of the Chemical Society Faraday Transactions I</i> , 1984, 80, 3119.	1.0	22

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55	Identification of Potential Regulatory Sites of the Na ⁺ ,K ⁺ -ATPase by Kinetic Analysis. <i>Biochemistry</i> , 2004, 43, 2241-2250.	2.5	22
56	Electrostatic Stabilization Plays a Central Role in Autoinhibitory Regulation of the Na ⁺ ,K ⁺ -ATPase. <i>Biophysical Journal</i> , 2017, 112, 288-299.	0.5	22
57	Pumping ions. <i>Clinical and Experimental Pharmacology and Physiology</i> , 2011, 38, 726-733.	1.9	21
58	Interaction of the fluorescent probe RH421 with ribulose-1,5-bisphosphate carboxylase/oxygenase and with Na ⁺ ,K ⁺ -ATPase membrane fragments. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1996, 1280, 51-64.	2.6	20
59	Dietary cholesterol alters Na ⁺ /K ⁺ selectivity at intracellular Na ⁺ /K ⁺ pump sites in cardiac myocytes. <i>American Journal of Physiology - Cell Physiology</i> , 2004, 286, C398-C405.	4.6	20
60	Synthesis and Supramolecular Studies of Chiral Boronated Platinum(II) Complexes: Insights into the Molecular Recognition of Carboranes by β -Cyclodextrin. <i>Chemistry - A European Journal</i> , 2012, 18, 14413-14425.	3.3	20
61	Time-resolved polarized fluorescence of the potential-sensitive dye RH421 in organic solvents and micelles. <i>Chemical Physics Letters</i> , 1994, 231, 551-560.	2.6	18
62	Dependence of Na ⁺ -K ⁺ pump current-voltage relationship on intracellular Na ⁺ , K ⁺ , and Cs ⁺ in rabbit cardiac myocytes. <i>American Journal of Physiology - Cell Physiology</i> , 2002, 283, C1511-C1521.	4.6	18
63	Identification of Electric-Field-Dependent Steps in the Na ⁺ ,K ⁺ -Pump Cycle. <i>Biophysical Journal</i> , 2014, 107, 1352-1363.	0.5	18
64	Binding and diffusion kinetics of the interaction of a hydrophobic potential-sensitive dye with lipid vesicles. <i>Biophysical Chemistry</i> , 1991, 39, 91-106.	2.8	16
65	Interaction of ATP with the Phosphoenzyme of the Na ⁺ ,K ⁺ -ATPase. <i>Biochemistry</i> , 2010, 49, 1248-1258.	2.5	16
66	Synthesis, carbohydrate- and DNA-binding studies of cationic 2,2':6''',2''':6'''-terpyridineplatinum(ii) complexes containing N- and S-donor boronic acid ligands. <i>Dalton Transactions</i> , 2011, 40, 506-513.	3.3	15
67	Comparison on protein adsorption properties of diamond-like carbon and nitrogen-containing plasma polymer surfaces. <i>Thin Solid Films</i> , 2012, 520, 3021-3025.	1.8	15
68	ATP Binding Equilibria of the Na ⁺ ,K ⁺ -ATPase. <i>Biochemistry</i> , 2008, 47, 13103-13114.	2.5	14
69	Excess molar volumes, refractive indices and transport properties of aqueous solutions of poly(ethylene glycol)s at (303.15-323.15) K. <i>Journal of Molecular Liquids</i> , 2015, 202, 176-188.	4.9	14
70	The local electric field within phospholipid membranes modulates the charge transfer reactions in reaction centres. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2009, 1787, 1039-1049.	1.0	13
71	Supramolecular β -Cyclodextrin Adducts of Boron-Rich DNA Metallointercalators Containing Dicarba-dodecaborane(12). <i>Inorganic Chemistry</i> , 2013, 52, 10356-10367.	4.0	13
72	The voltage-sensitive dye RH421 detects a Na ⁺ ,K ⁺ -ATPase conformational change at the membrane surface. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2017, 1859, 813-823.	2.6	13

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73	Evolutionary Analysis of the Lysine-Rich N-terminal Cytoplasmic Domains of the Gastric H ⁺ ,K ⁺ -ATPase and the Na ⁺ ,K ⁺ -ATPase. <i>Journal of Membrane Biology</i> , 2018, 251, 653-666.	2.1	13
74	Dual Mechanisms of Allosteric Acceleration of the Na ⁺ ,K ⁺ -ATPase by ATP. <i>Biophysical Journal</i> , 2010, 98, 2290-2298.	0.5	12
75	Kinetics of K ⁺ Occlusion by the Phosphoenzyme of the Na ⁺ ,K ⁺ -ATPase. <i>Biophysical Journal</i> , 2011, 100, 70-79.	0.5	12
76	Membrane accessibility of glutathione. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2015, 1848, 2430-2436.	2.6	12
77	Polar Interactions Play an Important Role in the Energetics of the Main Phase Transition of Phosphatidylcholine Membranes. <i>ACS Omega</i> , 2019, 4, 518-527.	3.5	12
78	Complexation of roccellin by $\hat{1}^2$ - and $\hat{1}^3$ -cyclodextrin. <i>Journal of the Chemical Society Faraday Transactions I</i> , 1986, 82, 2333.	1.0	11
79	Extracellular Allosteric Na ⁺ Binding to the Na ⁺ ,K ⁺ -ATPase in Cardiac Myocytes. <i>Biophysical Journal</i> , 2013, 105, 2695-2705.	0.5	11
80	Glutathionylation-Dependence of Na ⁺ -K ⁺ -Pump Currents Can Mimic Reduced Subsarcolemmal Na ⁺ + Diffusion. <i>Biophysical Journal</i> , 2016, 110, 1099-1109.	0.5	11
81	A fluorescense stopped-flow kinetic study of the displacement of 2-[(2-bis[carboxymethyl] amino-5-methylphenoxy)methyl]-6-methoxy-8-bis[carboxymethyl] aminoquinoline (quin2) from its Ca ²⁺ , Pr ³⁺ , Tb ³⁺ , Dy ³⁺ , and Yb ³⁺ complexes by ethylenedinitrilotetraacetate (edta) in aqueous solution. <i>Inorganica Chimica Acta</i> , 1988, 153, 21-24.	2.4	10
82	Interaction between DMPC liposomes and HM-PNIPAM polymer. <i>Biophysical Chemistry</i> , 2003, 104, 449-458.	2.8	10
83	Effect of Cholesterol on the Dipole Potential of Lipid Membranes. <i>Advances in Experimental Medicine and Biology</i> , 2019, 1115, 135-154.	1.6	10
84	Penetration of phospholipid membranes by poly-l-lysine depends on cholesterol and phospholipid composition. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2020, 1862, 183128.	2.6	10
85	Polarity of the ATP binding site of the Na ⁺ ,K ⁺ -ATPase, gastric H ⁺ ,K ⁺ -ATPase and sarcoplasmic reticulum Ca ²⁺ -ATPase. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2020, 1862, 183138.	2.6	10
86	Selective ion transport across a lipid bilayer in a protic ionic liquid. <i>Soft Matter</i> , 2021, 17, 2688-2694.	2.7	10
87	A theoretical description of non-steady-state diffusion of hydrophobic ions across lipid vesicle membranes including effects of ion-ion interactions. <i>Biophysical Chemistry</i> , 1993, 46, 131-143.	2.8	8
88	Influence of allosteric effectors on the kinetics and equilibrium binding of phosphoenolpyruvate (PEP) to phosphoenolpyruvate carboxylase (PEPC) from <i>Zea mays</i> . <i>Biophysical Chemistry</i> , 2001, 92, 53-64.	2.8	8
89	Stimulation of Na ⁺ ,K ⁺ -ATPase Activity as a Possible Driving Force in Cholesterol Evolution. <i>Journal of Membrane Biology</i> , 2016, 249, 251-259.	2.1	8
90	Evidence for ATP Interaction with Phosphatidylcholine Bilayers. <i>Langmuir</i> , 2019, 35, 9944-9953.	3.5	8

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91	Antibacterial Activity and Iron Release of Organic-Inorganic Hybrid Biomaterials Synthesized via the Sol-Gel Route. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 9311.	2.5	8
92	Electrogenic properties of the Na ⁺ ,K ⁺ -ATPase probed by presteady state and relaxation studies. <i>Journal of Bioenergetics and Biomembranes</i> , 2001, 33, 401-405.	2.3	7
93	Photochemical Behavior and Na ⁺ ,K ⁺ -ATPase Sensitivity of Voltage-sensitive Styrylpyridinium Fluorescent Membrane Probes. <i>Photochemistry and Photobiology</i> , 2006, 82, 495.	2.5	7
94	Electric Field Sensitive Dyes. <i>Springer Series on Fluorescence</i> , 2010, , 331-344.	0.8	7
95	Kinetic Comparisons of Heart and Kidney Na ⁺ ,K ⁺ -ATPases. <i>Biophysical Journal</i> , 2012, 103, 677-688.	0.5	6
96	An adsorption isotherm for the interaction of membrane-permeable hydrophobic ions with lipid vesicles. <i>Biophysical Chemistry</i> , 1992, 42, 63-72.	2.8	5
97	Kinetic Investigations of the Mechanism of the Rate-Determining Step of the Na ⁺ ,K ⁺ -ATPase Pump Cycle. <i>Annals of the New York Academy of Sciences</i> , 2003, 986, 159-162.	3.8	5
98	Fluorescence Enhancement through Confined Oligomerization in Nanochannels: An Anthryl Oligomer in a Metal-Organic Framework. , 2021, 3, 1599-1604.		4
99	Examination of the Photophysical Processes of Chlorophyll d Leading to a Clarification of Proposed Uphill Energy Transfer Processes in Cells of <i>Acaryochloris marina</i> . <i>Photochemistry and Photobiology</i> , 2003, 77, 628-637.	2.5	2
100	The High and Low Affinity Binding Sites of Digitalis Glycosides to Na,K-ATPase. <i>Arabian Journal for Science and Engineering</i> , 2014, 39, 75-85.	1.1	2
101	Order-disorder transitions of cytoplasmic N-termini in the mechanisms of P-type ATPases. <i>Faraday Discussions</i> , 2021, 232, 172-187.	3.2	2
102	Rapid Reaction Kinetics: Lessons Learnt from Ion Pumps. <i>Australian Journal of Chemistry</i> , 2011, 64, 5.	0.9	1
103	Glutathionylation of the $\hat{2}1$ Subunit Prevents the E1Na ₃ to E2P Forward Reaction in the Na ⁺ , K ⁺ ATPase. <i>Biophysical Journal</i> , 2014, 106, 427a.	0.5	1
104	Kinetic contribution to extracellular Na ⁺ /K ⁺ selectivity in the Na ⁺ /K ⁺ pump. <i>FEBS Open Bio</i> , 2018, 8, 854-859.	2.3	1
105	Biological Membrane Asymmetry and its Role in Bone Mineralization. <i>Macromolecular Symposia</i> , 2021, 396, 2000243.	0.7	1
106	Electrogenic plasma membrane H ⁺ -ATPase activity using voltage sensitive dyes. <i>Journal of Bioenergetics and Biomembranes</i> , 2010, 42, 387-393.	2.3	0
107	A Perspective on Biophysical Chemistry. <i>Australian Journal of Chemistry</i> , 2011, 64, 3.	0.9	0
108	Inside Cover: Mechanism of Cytotoxicity and Cellular Uptake of Lipophilic Inert Dinuclear Polypyridylruthenium(II) Complexes (<i>ChemMedChem</i> 5/2011). <i>ChemMedChem</i> , 2011, 6, 742-742.	3.2	0

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109	BIOPHYSCHEM2011: A Joint Meeting of the Australian Society for Biophysics and the RACI Physical Chemistry Division. Australian Journal of Chemistry, 2012, 65, 439.	0.9	0
110	Effects of Lipid Composition on Biological Membrane Electrostatics. Biophysical Journal, 2014, 106, 80a.	0.5	0
111	Evidence for ATP Interaction with Phosphatidylcholine Bilayers. Biophysical Journal, 2019, 116, 229a.	0.5	0