Ronald J Clarke

List of Publications by Citations

108 papers	3,067 citations	32 h-index	51 g-index
120 ext. papers	3,369 ext. citations	3.2 avg, IF	5.28 L-index

#	Paper	IF	Citations
108	The dipole potential of phospholipid membranes and methods for its detection. *Advances in Colloid and Interface Science*, **2001**, 89-90, 263-81	14.3	208
107	Influence of anions and cations on the dipole potential of phosphatidylcholine vesicles: a basis for the Hofmeister effect. *Biophysical Journal*, **1999**, 76, 2614-24	2.9	175
106	Inclusion Complexes of the Cyclomalto-Oligosaccharides (Cyclodextrins). *Advances in Carbohydrate Chemistry and Biochemistry*, **1988**, 46, 205-249	3.7	140
105	Cholesterol effect on the dipole potential of lipid membranes. *Biophysical Journal*, **2006**, 90, 4060-70	2.9	119
104	Optical detection of membrane dipole potential: avoidance of fluidity and dye-induced effects. *Biochimica Et Biophysica Acta - Biomembranes*, **1997**, 1323, 223-39	3.8	115
103	Mechanisms of cell uptake and toxicity of the anticancer drug cisplatin. *Metallomics*, **2014**, 6, 2126-33	4.5	104
102	Effect of lipid structure on the dipole potential of phosphatidylcholine bilayers. *Biochimica Et Biophysica Acta - Biomembranes*, **1997**, 1327, 269-78	3.8	103
101	Hydrophobic ion hydration and the magnitude of the dipole potential. *Biophysical Journal*, **2002**, 82, 3081-8	2.9	73
100	Stopped-flow kinetic investigations of conformational changes of pig kidney Na+,K+-ATPase. *Biochemistry*, **1997**, 36, 13406-20	3.2	62
99	Mechanism of cytotoxicity and cellular uptake of lipophilic inert dinuclear polypyridylruthenium(II) complexes. *ChemMedChem*, **2011**, 6, 848-58	3.7	61
98	Volumetric, viscosimetric and surface properties of aqueous solutions of triethylene glycol, tetraethylene glycol, and tetraethylene glycol dimethyl ether. *Journal of Molecular Liquids*, **2013**, 177, 11-18	6	58
97	Rate limitation of the Na(+),K(+)-ATPase pump cycle. *Biophysical Journal*, **2001**, 81, 2069-81	2.9	53
96	Electric field strength of membrane lipids from vertebrate species: membrane lipid composition and Na+-K+-ATPase molecular activity. *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **2005**, 288, R663-70	3.2	52
95	Mg2+-induced tRNA folding. *Biochemistry*, **2001**, 40, 6688-98	3.2	51
94	Effect of headgroup on the dipole potential of phospholipid vesicles. *European Biophysics Journal*, **2009**, 39, 103-10	1.9	49
93	Voltage sensitivity of the fluorescent probe RH421 in a model membrane system. *Biophysical Journal*, **1995**, 68, 1406-15	2.9	47
92	Potassium-activated GTPase reaction in the G Protein-coupled ferrous iron transporter B. *Journal of Biological Chemistry*, **2010**, 285, 14594-602	5.4	44

91	Kinetic and equilibrium studies of cyclomalto-octaose (Ecyclodextrin)-methyl orange inclusion complexes. *Carbohydrate Research*, **1984**, 127, 181-191	2.9	43
90	Comparison of excitation and emission ratiometric fluorescence methods for quantifying the membrane dipole potential. *Biochimica Et Biophysica Acta - Biomembranes*, **2007**, 1768, 107-14	3.8	42
89	Kinetics of Na(+)-dependent conformational changes of rabbit kidney Na+,K(+)-ATPase. *Biophysical Journal*, **1998**, 75, 1340-53	2.9	42
88	The nitric oxide donor sodium nitroprusside stimulates the Na+-K+ pump in isolated rabbit cardiac myocytes. *Journal of Physiology*, **2005**, 565, 815-25	3.9	41
87	Susceptibility of 1 Na+-K+ pump subunit to glutathionylation and oxidative inhibition depends on conformational state of pump. *Journal of Biological Chemistry*, **2012**, 287, 12353-64	5.4	39
86	Two gears of pumping by the sodium pump. *Biophysical Journal*, **2007**, 93, 4187-96	2.9	36
85	Time-resolved fluorescence investigations of the interaction of the voltage-sensitive probe RH421 with lipid membranes and proteins. *Biochemistry*, **1995**, 34, 11777-84	3.2	36
84	Peptide Ligation at High Dilution via Reductive Diselenide-Selenoester Ligation. *Journal of the American Chemical Society*, **2020**, 142, 1090-1100	16.4	36
83	Structural basis of GDP release and gating in G protein coupled Fe2+ transport. *EMBO Journal*, **2009**, 28, 2677-85	13	35
82	P(3)-[2-(4-hydroxyphenyl)-2-oxo]ethyl ATP for the rapid activation of the Na(+),K(+)-ATPase. *Biophysical Journal*, **2000**, 79, 1346-57	2.9	34
81	Allosteric effect of ATP on Na(+),K(+)-ATPase conformational kinetics. *Biochemistry*, **2007**, 46, 7034-44	3.2	33
80	Mechanism of the rate-determining step of the Na(+),K(+)-ATPase pump cycle. *Biochemistry*, **2002**, 41, 9496-507	3.2	33
79	Mechanism of Action of Surface Immobilized Antimicrobial Peptides Against. *Frontiers in Microbiology*, **2019**, 10, 3053	5.7	32
78	Orientational polarisability of lipid membrane surfaces. *Biochimica Et Biophysica Acta - Biomembranes*, **2007**, 1768, 562-70	3.8	32
77	A stopped-flow kinetic study of the interaction of potential-sensitive oxonol dyes with lipid vesicles. *Biophysical Chemistry*, **1989**, 34, 225-37	3.5	31
76	Quantitative calculation of the role of the Na(+),K(+)-ATPase in thermogenesis. *Biochimica Et Biophysica Acta - Bioenergetics*, **2013**, 1827, 1205-12	4.6	30
75	Dephosphorylation kinetics of pig kidney Na+,K+-ATPase. *Biochemistry*, **1998**, 37, 4581-91	3.2	30
74	Solvent dependence of the photochemistry of the styrylpyridinium dye RH421. *Journal of Physical Chemistry B*, **2008**, 112, 6513-20	3.4	29

73	Kinetics of the Solubilization of Styryl Dye Aggregates by Lipid Vesicles. *The Journal of Physical Chemistry*, **1994**, 98, 1732-1738		27
72	Hofmeister effects of anions on the kinetics of partial reactions of the Na+,K+-ATPase. *Biophysical Journal*, **1999**, 77, 267-81	2.9	26
71	Densities, Viscosities, and Surface Tensions of the System Water + Diethylene Glycol. *Journal of Chemical & Engineering Data*, **2011**, 56, 303-306	2.8	24
70	Alloxan-induced diabetes reduces sarcolemmal Na+-K+ pump function in rabbit ventricular myocytes. *American Journal of Physiology - Cell Physiology*, **2007**, 292, C1070-7	5.4	24
69	Examination of the photophysical processes of chlorophyll d leading to a clarification of proposed uphill energy transfer processes in cells of Acaryochloris marinas. *Photochemistry and Photobiology*, **2003**, 77, 628-37	3.6	24
68	Spectroscopic investigations of the potential-sensitive membrane probe RH421. *Biochimica Et Biophysica Acta - Biomembranes*, **1992**, 1112, 142-52	3.8	23
67	Interaction of N-terminal peptide analogues of the Na,K-ATPase with membranes. *Biochimica Et Biophysica Acta - Biomembranes*, **2018**, 1860, 1282-1291	3.8	22
66	Identification of potential regulatory sites of the Na+,K+-ATPase by kinetic analysis. *Biochemistry*, **2004**, 43, 2241-50	3.2	22
65	Static and dynamic studies of the potential-sensitive membrane probe RH421 in dimyristoylphosphatidylcholine vesicles. *Biochimica Et Biophysica Acta - Biomembranes*, **1993**, 1153, 203-12	3.8	22
64	Physiological roles of transverse lipid asymmetry of animal membranes. *Biochimica Et Biophysica Acta - Biomembranes*, **2020**, 1862, 183382	3.8	21
63	Mechanism of Mg2+ binding in the Na+,K+-ATPase. *Biophysical Journal*, **2009**, 96, 3753-61	2.9	21
62	Fluorescence and Light Scattering. *Journal of Chemical Education*, **2004**, 81, 705	2.4	21
61	Pump current and Na+/K+ coupling ratio of Na+/K+-ATPase in reconstituted lipid vesicles. *Biochimica Et Biophysica Acta - Biomembranes*, **1989**, 981, 326-36	3.8	21
60	Mechanism of allosteric effects of ATP on the kinetics of P-type ATPases. *European Biophysics Journal*, **2009**, 39, 3-17	1.9	20
59	Dipole-Potential-Mediated Effects on Ion Pump Kinetics. *Biophysical Journal*, **2015**, 109, 1513-20	2.9	19
58	Redox-dependent regulation of the Na+-K+ pump: new twists to an old target for treatment of heart failure. *Journal of Molecular and Cellular Cardiology*, **2013**, 61, 94-101	5.8	19
57	Investigation of the enzymatic activity of the Na+,K+-ATPase via isothermal titration microcalorimetry. *Biochimica Et Biophysica Acta - Bioenergetics*, **2010**, 1797, 1540-5	4.6	19
56	Complexation of tropaeolin 000 No. 2 by □and □cyclodextrin. *Journal of the Chemical Society Faraday Transactions I*, **1984**, 80, 3119		19

55	Synthesis and supramolecular studies of chiral boronated platinum(II) complexes: insights into the molecular recognition of carboranes by Ecyclodextrin. *Chemistry - A European Journal*, **2012**, 18, 14413-25	4.8	18
54	Dietary cholesterol alters Na+/K+ selectivity at intracellular Na+/K+ pump sites in cardiac myocytes. *American Journal of Physiology - Cell Physiology*, **2004**, 286, C398-405	5.4	18
53	Cholesterol depletion inhibits Na,K-ATPase activity in a near-native membrane environment. *Journal of Biological Chemistry*, **2019**, 294, 5956-5969	5.4	17
52	Pumping ions. *Clinical and Experimental Pharmacology and Physiology*, **2011**, 38, 726-33	3	17
51	Time-resolved polarized fluorescence of the potential-sensitive dye RH421 in organic solvents and micelles. *Chemical Physics Letters*, **1994**, 231, 551-560	2.5	17
50	Electrostatic Stabilization Plays a Central Role in Autoinhibitory Regulation of the Na,K-ATPase. *Biophysical Journal*, **2017**, 112, 288-299	2.9	16
49	Interaction of the fluorescent probe RH421 with ribulose-1,5-bisphosphate carboxylase/oxygenase and with Na+,K(+)-ATPase membrane fragments. *Biochimica Et Biophysica Acta - Biomembranes*, **1996**, 1280, 51-64	3.8	16
48	Identification of electric-field-dependent steps in the Na(+),K(+)-pump cycle. *Biophysical Journal*, **2014**, 107, 1352-63	2.9	15
47	Comparison on protein adsorption properties of diamond-like carbon and nitrogen-containing plasma polymer surfaces. *Thin Solid Films*, **2012**, 520, 3021-3025	2.2	15
46	Synthesis, carbohydrate- and DNA-binding studies of cationic 2,2$6$2$terpyridineplatinum(II) complexes containing N- and S-donor boronic acid ligands. *Dalton Transactions*, **2011**, 40, 506-13	4.3	15
45	Interaction of ATP with the phosphoenzyme of the Na+,K+-ATPase. *Biochemistry*, **2010**, 49, 1248-58	3.2	15
44	Dependence of Na+-K+ pump current-voltage relationship on intracellular Na+, K+, and Cs+ in rabbit cardiac myocytes. *American Journal of Physiology - Cell Physiology*, **2002**, 283, C1511-21	5.4	15
43	Excess molar volumes, refractive indices and transport properties of aqueous solutions of poly(ethylene glycol)s at (303.15–323.15) K. *Journal of Molecular Liquids*, **2015**, 202, 176-188	6	14
42	The local electric field within phospholipid membranes modulates the charge transfer reactions in reaction centres. *Biochimica Et Biophysica Acta - Bioenergetics*, **2009**, 1787, 1039-49	4.6	13
41	Binding and diffusion kinetics of the interaction of a hydrophobic potential-sensitive dye with lipid vesicles. *Biophysical Chemistry*, **1991**, 39, 91-106	3.5	13
40	Kinetics of K(+) occlusion by the phosphoenzyme of the Na(+),K(+)-ATPase. *Biophysical Journal*, **2011**, 100, 70-9	2.9	12
39	ATP binding equilibria of the Na(+),K(+)-ATPase. *Biochemistry*, **2008**, 47, 13103-14	3.2	12
38	Supramolecular Ecyclodextrin adducts of boron-rich DNA metallointercalators containing dicarba-closo-dodecaborane(12). *Inorganic Chemistry*, **2013**, 52, 10356-67	5.1	11

37	Extracellular allosteric Na(+) binding to the Na(+),K(+)-ATPase in cardiac myocytes. *Biophysical Journal*, **2013**, 105, 2695-705	2.9	11
36	The voltage-sensitive dye RH421 detects a Na,K-ATPase conformational change at the membrane surface. *Biochimica Et Biophysica Acta - Biomembranes*, **2017**, 1859, 813-823	3.8	10
35	General and specific interactions of the phospholipid bilayer with P-type ATPases. *Biophysical Reviews*, **2019**, 11, 353-364	3.7	10
34	Complexation of roccellin by □and □cyclodextrin. *Journal of the Chemical Society Faraday Transactions I*, **1986**, 82, 2333		10
33	Dual mechanisms of allosteric acceleration of the Na(+),K(+)-ATPase by ATP. *Biophysical Journal*, **2010**, 98, 2290-8	2.9	9
32	Interaction between DMPC liposomes and HM-PNIPAM polymer. *Biophysical Chemistry*, **2003**, 104, 449-58	3.5	9
31	Membrane accessibility of glutathione. *Biochimica Et Biophysica Acta - Biomembranes*, **2015**, 1848, 2430-6	3.8	8
30	Influence of allosteric effectors on the kinetics and equilibrium binding of phosphoenolpyruvate (PEP) to phosphoenolpyruvate carboxylase (PEPC) from Zea mays. *Biophysical Chemistry*, **2001**, 92, 53-64	3.5	8
29	A theoretical description of non-steady-state diffusion of hydrophobic ions across lipid vesicle membranes including effects of ion-ion interactions in the aqueous phase. *Biophysical Chemistry*, **1993**, 46, 131-43	3.5	8
28	Glutathionylation-Dependence of Na(+)-K(+)-Pump Currents Can Mimic Reduced Subsarcolemmal Na(+) Diffusion. *Biophysical Journal*, **2016**, 110, 1099-109	2.9	8
27	Polar Interactions Play an Important Role in the Energetics of the Main Phase Transition of Phosphatidylcholine Membranes. *ACS Omega*, **2019**, 4, 518-527	3.9	8
26	Photochemical behavior and Na+,K+-ATPase sensitivity of voltage-sensitive styrylpyridinium fluorescent membrane probes. *Photochemistry and Photobiology*, **2006**, 82, 495-502	3.6	7
25	Electrogenic properties of the Na+,K+-ATPase probed by presteady state and relaxation studies. *Journal of Bioenergetics and Biomembranes*, **2001**, 33, 401-5	3.7	7
24	A fluorescene 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 Ca2+, Pr3+, Tb3+, Dy3+, and Yb3+ complexes by ethylenedinitrilotetraacetate (edta) in aqueous solution. *Inorganica Chimica Acta*, **1988**, 153, 21-24	2.7	7
23	Evolutionary Analysis of the Lysine-Rich N-terminal Cytoplasmic Domains of the Gastric H,K-ATPase and the Na,K-ATPase. *Journal of Membrane Biology*, **2018**, 251, 653-666	2.3	6
22	Evidence for ATP Interaction with Phosphatidylcholine Bilayers. *Langmuir*, **2019**, 35, 9944-9953	4	6
21	Kinetic comparisons of heart and kidney Na+,K(+)-ATPases. *Biophysical Journal*, **2012**, 103, 677-88	2.9	6
20	Electric Field Sensitive Dyes. *Springer Series on Fluorescence*, **2010**, 331-344	0.5	6

19	Stimulation of Na(+),K(+)-ATPase Activity as a Possible Driving Force in Cholesterol Evolution. *Journal of Membrane Biology*, **2016**, 249, 251-9	2.3	5
18	Kinetic investigations of the mechanism of the rate-determining step of the Na+,K+-ATPase pump cycle. *Annals of the New York Academy of Sciences*, **2003**, 986, 159-62	6.5	5
17	An adsorption isotherm for the interaction of membrane-permeable hydrophobic ions with lipid vesicles. *Biophysical Chemistry*, **1992**, 42, 63-72	3.5	5
16	Antibacterial Activity and Iron Release of Organic-Inorganic Hybrid Biomaterials Synthesized via the Sol-Gel Route. *Applied Sciences (Switzerland)*, **2021**, 11, 9311	2.6	4
15	Effect of Cholesterol on the Dipole Potential of Lipid Membranes. *Advances in Experimental Medicine and Biology*, **2019**, 1115, 135-154	3.6	4
14	Penetration of phospholipid membranes by poly-l-lysine depends on cholesterol and phospholipid composition. *Biochimica Et Biophysica Acta - Biomembranes*, **2020**, 1862, 183128	3.8	3
13	The High and Low Affinity Binding Sites of Digitalis Glycosides to Na,K-ATPase. *Arabian Journal for Science and Engineering*, **2014**, 39, 75-85		2
12	Polarity of the ATP binding site of the Na,K-ATPase, gastric H,K-ATPase and sarcoplasmic reticulum Ca-ATPase. *Biochimica Et Biophysica Acta - Biomembranes*, **2020**, 1862, 183138	3.8	2
11	Fluorescence Enhancement through Confined Oligomerization in Nanochannels: An Anthryl Oligomer in a Metal-Organic Framework **2021**, 3, 1599-1604		1
10	Selective ion transport across a lipid bilayer in a protic ionic liquid. *Soft Matter*, **2021**, 17, 2688-2694	3.6	1
9	Stopped-Flow Fluorimetry Using Voltage-Sensitive Fluorescent Membrane Probes179-209		1
8	Kinetic contribution to extracellular Na/K selectivity in the Na/K pump. *FEBS Open Bio*, **2018**, 8, 854-859	2.7	0
7	Rapid Reaction Kinetics: Lessons Learnt from Ion Pumps. *Australian Journal of Chemistry*, **2011**, 64, 5	1.2	0
6	Examination of the Photophysical Processes of Chlorophyll d Leading to a Clarification of Proposed Uphill Energy Transfer Processes in Cells of Acaryochloris marina. *Photochemistry and Photobiology*, **2007**, 77, 628-637	3.6	0
5	A Perspective on Biophysical Chemistry. *Australian Journal of Chemistry*, **2011**, 64, 3	1.2	
4	Inside Cover: Mechanism of Cytotoxicity and Cellular Uptake of Lipophilic Inert Dinuclear Polypyridylruthenium(II) Complexes (ChemMedChem 5/2011). *ChemMedChem*, **2011**, 6, 742-742	3.7	
3	BIOPHYSCHEM2011: A Joint Meeting of the Australian Society for Biophysics and the RACI Physical Chemistry Division. *Australian Journal of Chemistry*, **2012**, 65, 439	1.2	
2	Electrogenic plasma membrane H+-ATPase activity using voltage sensitive dyes. *Journal of Bioenergetics and Biomembranes*, **2010**, 42, 387-93	3.7	

1 Biological Membrane Asymmetry and its Role in Bone Mineralization. *Macromolecular Symposia*, **2021**, 396, 2000243 0.8