W J Lederer

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

180 papers	24,625 citations	78 h-index	156 g-index
186 ext. papers	26,047 ext. citations	10.1 avg, IF	6.6 L-index

#	Paper	IF	Citations
180	Dynamics of the mitochondrial permeability transition pore: Transient and permanent opening events. *Archives of Biochemistry and Biophysics*, **2019**, 666, 31-39	4.1	27
179	Ambiguous interactions between diastolic and SR Ca in the regulation of cardiac Ca release. *Journal of General Physiology*, **2017**, 149, 847-855	3.4	11
178	Ryanodine receptor sensitivity governs the stability and synchrony of local calcium release during cardiac excitation-contraction coupling. *Journal of Molecular and Cellular Cardiology*, **2016**, 92, 82-92	5.8	28
177	Myosin-binding protein C corrects an intrinsic inhomogeneity in cardiac excitation-contraction coupling. *Science Advances*, **2015**, 1,	14.3	47
176	STIM1-Ca2+ signaling modulates automaticity of the mouse sinoatrial node. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, E5618-27	11.5	34
175	STIM1 enhances SR Ca2+ content through binding phospholamban in rat ventricular myocytes. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, E4792-801	11.5	43
174	The growing importance of mitochondrial calcium in health and disease. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 11150-1	11.5	9
173	On the Adjacency Matrix of RyR2 Cluster Structures. *PLoS Computational Biology*, **2015**, 11, e1004521	5	24
172	Superresolution modeling of calcium release in the heart. *Biophysical Journal*, **2014**, 107, 3018-3029	2.9	66
171	X-ROS signaling in the heart and skeletal muscle: stretch-dependent local ROS regulates [Ca□+]i. *Journal of Molecular and Cellular Cardiology*, **2013**, 58, 172-81	5.8	85
170	NCLX: the mitochondrial sodium calcium exchanger. *Journal of Molecular and Cellular Cardiology*, **2013**, 59, 205-13	5.8	111
169	Mitochondrial calcium uptake. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 10479-86	11.5	236
168	Dynamic local changes in sarcoplasmic reticulum calcium: physiological and pathophysiological roles. *Journal of Molecular and Cellular Cardiology*, **2012**, 52, 304-11	5.8	38
167	Cell biology. Superresolution subspace signaling. *Science*, **2012**, 336, 546-7	33.3	1
166	Microtubules underlie dysfunction in duchenne muscular dystrophy. *Science Signaling*, **2012**, 5, ra56	8.8	161
165	Dynamics of calcium sparks and calcium leak in the heart. *Biophysical Journal*, **2011**, 101, 1287-96	2.9	89
164	X-ROS signaling: rapid mechano-chemo transduction in heart. *Science*, **2011**, 333, 1440-5	33.3	400

163	Stochastic simulation of cardiac ventricular myocyte calcium dynamics and waves. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2011**, 2011, 4677-80	0.9	3
162	Mitofusin-2 maintains mitochondrial structure and contributes to stress-induced permeability transition in cardiac myocytes. *Molecular and Cellular Biology*, **2011**, 31, 1309-28	4.8	252
161	Alterations of atrial Ca(2+) handling as cause and consequence of atrial fibrillation. *Cardiovascular Research*, **2011**, 89, 722-33	9.9	54
160	Subcellular Ca2+ signaling in the heart: the role of ryanodine receptor sensitivity. *Journal of General Physiology*, **2010**, 136, 135-42	3.4	26
159	Ca sparks do not explain all ryanodine receptor-mediated SR Ca leak in mouse ventricular myocytes. *Biophysical Journal*, **2010**, 98, 2111-20	2.9	51
158	Excitation-contraction coupling changes during postnatal cardiac development. *Journal of Molecular and Cellular Cardiology*, **2010**, 48, 379-86	5.8	107
157	An antidote for calcium leak: targeting molecular arrhythmia mechanisms. *Journal of Molecular and Cellular Cardiology*, **2010**, 48, 279-82	5.8	6
156	Distribution of ryanodine receptors in rat ventricular myocytes. *Journal of Muscle Research and Cell Motility*, **2009**, 30, 161-70	3.5	18
155	Mitochondria in cardiomyocyte Ca2+ signaling. *International Journal of Biochemistry and Cell Biology* , **2009**, 41, 1957-71	5.6	76
154	Diastolic transient inward current in long QT syndrome type 3 is caused by Ca2+ overload and inhibited by ranolazine. *Journal of Molecular and Cellular Cardiology*, **2009**, 47, 326-34	5.8	33
153	Nuclear Ca2+ regulates cardiomyocyte function. *Cell Calcium*, **2008**, 44, 230-42	4	65
152	Another calcium paradox in heart failure. *Journal of Molecular and Cellular Cardiology*, **2008**, 45, 28-31	5.8	5
151	The cardiac IP3 receptor: uncovering the role of "the other" calcium-release channel. *Journal of Molecular and Cellular Cardiology*, **2008**, 45, 159-61	5.8	20
150	Alternative splicing: a key mechanism for ankyrin-B functional diversity?. *Journal of Molecular and Cellular Cardiology*, **2008**, 45, 709-11	5.8	3
149	Calcium sparks. *Physiological Reviews*, **2008**, 88, 1491-545	47.9	447
148	Leaky Ca2+ release channel/ryanodine receptor 2 causes seizures and sudden cardiac death in mice. *Journal of Clinical Investigation*, **2008**, 118, 2230-45	15.9	260
147	Probing the outer mitochondrial membrane in cardiac mitochondria with nanoparticles. *Biophysical Journal*, **2007**, 92, 1058-71	2.9	77
146	Functional groups of ryanodine receptors in rat ventricular cells. *Journal of Physiology*, **2007**, 583, 251-69	3.9	37

145	Phosphorylation and other conundrums of Na/Ca exchanger, NCX1. *Annals of the New York Academy of Sciences*, **2007**, 1099, 103-18	6.5	15
144	Novel approach to real-time flash photolysis and confocal [Ca2+] imaging. *Pflugers Archiv European Journal of Physiology*, **2007**, 454, 663-73	4.6	8
143	The Ca 2+ leak paradox and rogue ryanodine receptors: SR Ca 2+ efflux theory and practice. *Progress in Biophysics and Molecular Biology*, **2006**, 90, 172-85	4.7	92
142	Stabilization of cardiac ryanodine receptor prevents intracellular calcium leak and arrhythmias. *Proceedings of the National Academy of Sciences of the United States of America*, **2006**, 103, 7906-10	11.5	180
141	Orphaned ryanodine receptors in the failing heart. *Proceedings of the National Academy of Sciences of the United States of America*, **2006**, 103, 4305-10	11.5	347
140	Aqueous diffusion pathways as a part of the ventricular cell ultrastructure. *Biophysical Journal*, **2006**, 90, 1107-19	2.9	39
139	Restitution of Ca(2+) release and vulnerability to arrhythmias. *Journal of Cardiovascular Electrophysiology*, **2006**, 17 Suppl 1, S64-S70	2.7	32
138	Calcium biology of the transverse tubules in heart. *Annals of the New York Academy of Sciences*, **2005**, 1047, 99-111	6.5	49
137	Calmodulin kinase II inhibition protects against structural heart disease. *Nature Medicine*, **2005**, 11, 409-17	50.5	465
136	Local recovery of Ca2+ release in rat ventricular myocytes. *Journal of Physiology*, **2005**, 565, 441-7	3.9	71
135	Ca2+ blinks: rapid nanoscopic store calcium signaling. *Proceedings of the National Academy of Sciences of the United States of America*, **2005**, 102, 3099-104	11.5	170
134	Twenty years of calcium imaging: cell physiology to dye for. *Molecular Interventions: Pharmacological Perspectives From Biology, Chemistry and Genomics*, **2005**, 5, 112-27		36
133	Overexpression of beta2-adrenergic receptors cAMP-dependent protein kinase phosphorylates and modulates slow delayed rectifier potassium channels expressed in murine heart: evidence for receptor/channel co-localization. *Journal of Biological Chemistry*, **2004**, 279, 40778-87	5.4	34
132	DYNAMICS OF CARDIAC INTRACELLULAR Ca2+ HANDLING FROM EXPERIMENTS TO VIRTUAL CELLS. *International Journal of Bifurcation and Chaos in Applied Sciences and Engineering*, **2003**, 13, 3535-3560	2	1
131	Ankyrin-B mutation causes type 4 long-QT cardiac arrhythmia and sudden cardiac death. *Nature*, **2003**, 421, 634-9	50.4	812
130	FKBP12.6 deficiency and defective calcium release channel (ryanodine receptor) function linked to exercise-induced sudden cardiac death. *Cell*, **2003**, 113, 829-40	56.2	589
129	The challenge of molecular medicine: complexity versus Occam's razor. *Journal of Clinical Investigation*, **2003**, 111, 801-3	15.9	6
128	Local Ca(2+) signaling and EC coupling in heart: Ca(2+) sparks and the regulation of the [Ca(2+)](i) transient. *Journal of Molecular and Cellular Cardiology*, **2002**, 34, 941-50	5.8	93

127	Heart failure after myocardial infarction: altered excitation-contraction coupling. *Circulation*, **2001**, 104, 688-93	16.7	159
126	Role of sodium channel deglycosylation in the genesis of cardiac arrhythmias in heart failure. *Journal of Biological Chemistry*, **2001**, 276, 28197-203	5.4	101
125	Molecular identification of a TTX-sensitive Ca(2+) current. *American Journal of Physiology - Cell Physiology*, **2001**, 280, C1327-39	5.4	61
124	Membrane depolarization, elevated Ca(2+) entry, and gene expression in cerebral arteries of hypertensive rats. *American Journal of Physiology - Heart and Circulatory Physiology*, **2001**, 281, H2559-67	5.2	78
123	Functional differences between cardiac and renal isoforms of the rat Na+-Ca2+ exchanger NCX1 expressed in Xenopus oocytes. *Journal of Physiology*, **2000**, 529 Pt 3, 599-610	3.9	60
122	Calcium sparks in smooth muscle. *American Journal of Physiology - Cell Physiology*, **2000**, 278, C235-56	5.4	499
121	Cellular and functional defects in a mouse model of heart failure. *American Journal of Physiology - Heart and Circulatory Physiology*, **2000**, 279, H3101-12	5.2	97
120	Sodium/calcium exchange: its physiological implications. *Physiological Reviews*, **1999**, 79, 763-854	47.9	1397
119	Ni2+ transport by the human Na+/Ca2+ exchanger expressed in Sf9 cells. *American Journal of Physiology - Cell Physiology*, **1999**, 276, C1184-92	5.4	11
118	Functional expression of the human cardiac Na+/Ca2+ exchanger in Sf9 cells: rapid and specific Ni2+ transport. *Cell Calcium*, **1999**, 25, 9-17	4	14
117	Immunofluorescence localization of SERCA2a and the phosphorylated forms of phospholamban in intact rat cardiac ventricular myocytes. *Annals of the New York Academy of Sciences*, **1998**, 853, 273-9	6.5	12
116	Ca2+ channels, ryanodine receptors and Ca(2+)-activated K+ channels: a functional unit for regulating arterial tone. *Acta Physiologica Scandinavica*, **1998**, 164, 577-87		240
115	A simple numerical model of calcium spark formation and detection in cardiac myocytes. *Biophysical Journal*, **1998**, 75, 15-32	2.9	182
114	Ca2+ flux through promiscuous cardiac Na+ channels: slip-mode conductance. *Science*, **1998**, 279, 1027-33	33.3	153
113	Novel subunit composition of a renal epithelial KATP channel. *Journal of Biological Chemistry*, **1998**, 273, 14165-71	5.4	78
112	Sarcoplasmic reticulum in heart failure: central player or bystander?. *Cardiovascular Research*, **1998**, 37, 346-51	9.9	28
111	Isoform-specific regulation of the Na+/Ca2+ exchanger in rat astrocytes and neurons by PKA. *Journal of Neuroscience*, **1998**, 18, 4833-41	6.6	77
110	Frequency modulation of Ca2+ sparks is involved in regulation of arterial diameter by cyclic nucleotides. *American Journal of Physiology - Cell Physiology*, **1998**, 274, C1346-55	5.4	180

109	Independent inhibition of calcineurin and K+ currents by the immunosuppressant FK-506 in rat ventricle. *American Journal of Physiology - Heart and Circulatory Physiology*, **1998**, 275, H2041-52	5.2	16
108	Defective excitation-contraction coupling in experimental cardiac hypertrophy and heart failure. *Science*, **1997**, 276, 800-6	33.3	639
107	Suppression of voltage-gated L-type Ca2+ currents by polyunsaturated fatty acids in adult and neonatal rat ventricular myocytes. *Proceedings of the National Academy of Sciences of the United States of America*, **1997**, 94, 4182-7	11.5	322
106	Na+/Ca2+ exchanger in Drosophila: cloning, expression, and transport differences. *American Journal of Physiology - Cell Physiology*, **1997**, 273, C257-65	5.4	38
105	Calcium sparks and excitation-contraction coupling in phospholamban-deficient mouse ventricular myocytes. *Journal of Physiology*, **1997**, 503 (Pt 1), 21-9	3.9	117
104	Effect of the immunosupressant FK506 on excitation-contraction coupling and outward K+ currents in rat ventricular myocytes. *Journal of Physiology*, **1997**, 501 (Pt 3), 509-16	3.9	47
103	Dynamic modulation of excitation-contraction coupling by protein phosphatases in rat ventricular myocytes. *Journal of Physiology*, **1996**, 493 (Pt 3), 793-800	3.9	75
102	The molecular biology of the Na(+)-Ca2+ exchanger and its functional roles in heart, smooth muscle cells, neurons, glia, lymphocytes, and nonexcitable cells. *Annals of the New York Academy of Sciences*, **1996**, 779, 7-17	6.5	26
101	Alternative splicing of the Na(+)-Ca2+ exchanger gene, NCX1. *Annals of the New York Academy of Sciences*, **1996**, 779, 46-57	6.5	12
100	Cardiac Na-Ca exchange and pH. *Annals of the New York Academy of Sciences*, **1996**, 779, 182-98	6.5	35
99	Calcium sparks and [Ca2+]i waves in cardiac myocytes. *American Journal of Physiology - Cell Physiology*, **1996**, 270, C148-59	5.4	442
98	Repriming and activation alter the frequency of stereotyped discrete Ca2+ release events in frog skeletal muscle. *Journal of Physiology*, **1996**, 497 (Pt 3), 581-8	3.9	32
97	Ca2+ diffusion and sarcoplasmic reticulum transport both contribute to [Ca2+]i decline during Ca2+ sparks in rat ventricular myocytes. *Journal of Physiology*, **1996**, 496 (Pt 2), 575-81	3.9	92
96	Excitation-contraction coupling in heart: new insights from Ca2+ sparks. *Cell Calcium*, **1996**, 20, 129-40	4	160
95	Two mechanisms of quantized calcium release in skeletal muscle. *Nature*, **1996**, 379, 455-8	50.4	281
94	Relation between the sarcolemmal Ca2+ current and Ca2+ sparks and local control theories for cardiac excitation-contraction coupling. *Circulation Research*, **1996**, 78, 166-71	15.7	179
93	Use of thapsigargin to study Ca2+ homeostasis in cardiac cells. *Bioscience Reports*, **1995**, 15, 341-9	4.1	106
92	Relaxation of arterial smooth muscle by calcium sparks. *Science*, **1995**, 270, 633-7	33.3	1190

91	Rapid adaptation of cardiac ryanodine receptors: modulation by Mg2+ and phosphorylation. *Science*, **1995**, 267, 1997-2000	33.3	303
90	Models of Ca2+ release channel adaptation. *Science*, **1995**, 267, 2009-10	33.3	34
89	The control of calcium release in heart muscle. *Science*, **1995**, 268, 1045-9	33.3	495
88	Modulation of cardiac ryanodine receptors of swine and rabbit by a phosphorylation-dephosphorylation mechanism. *Journal of Physiology*, **1995**, 487 (Pt 3), 609-22	3.9	119
87	Partial inhibition of Ca2+ current by methoxyverapamil (D600) reveals spatial nonuniformities in [Ca2+]i during excitation-contraction coupling in cardiac myocytes. *Circulation Research*, **1995**, 76, 236-41	15.7	48
86	The action of Na+ as a cofactor in the inhibition by cytoplasmic protons of the cardiac Na(+)-Ca2+ exchanger in the guinea-pig. *Journal of Physiology*, **1994**, 480 (Pt 1), 9-20	3.9	60
85	Propagation of excitation-contraction coupling into ventricular myocytes. *Pflugers Archiv European Journal of Physiology*, **1994**, 428, 415-7	4.6	71
84	Measurement of intracellular Ca2+ concentration using Indo-1 during simultaneous flash photolysis to release Ca2+ from DM-nitrophen. *Pflugers Archiv European Journal of Physiology*, **1994**, 427, 169-77	4.6	4
83	Fluorescence lifetime imaging of intracellular calcium in COS cells using Quin-2. *Cell Calcium*, **1994**, 15, 7-27	4	96
82	On establishing primary cultures of neonatal rat ventricular myocytes for analysis over long periods. *Journal of Cardiovascular Electrophysiology*, **1994**, 5, 50-62	2.7	30
81	Spatial non-uniformities in [Ca2+]i during excitation-contraction coupling in cardiac myocytes. *Biophysical Journal*, **1994**, 67, 1942-56	2.9	325
80	Two-photon-excitation fluorescence imaging of three-dimensional calcium-ion activity. *Applied Optics*, **1994**, 33, 662-9	1.7	73
79	Dual regulation of Ca2+/calmodulin-dependent kinase II activity by membrane voltage and by calcium influx. *Proceedings of the National Academy of Sciences of the United States of America*, **1994**, 91, 9659-63	11.5	170
78	Mutually exclusive and cassette exons underlie alternatively spliced isoforms of the Na/Ca exchanger. *Journal of Biological Chemistry*, **1994**, 269, 5145-9	5.4	163
77	Activation of Na-Ca exchange current by photolysis of "caged calcium". *Biophysical Journal*, **1993**, 65, 882-91	2.9	38
76	Does the use of DM-nitrophen, nitr-5, or diazo-2 interfere with the measurement of indo-1 fluorescence?. *Biophysical Journal*, **1993**, 65, 2537-46	2.9	10
75	Calcium sparks: elementary events underlying excitation-contraction coupling in heart muscle. *Science*, **1993**, 262, 740-4	33.3	1652
74	Mapping of the human cardiac Na+/Ca2+ exchanger gene (NCX1) by fluorescent in situ hybridization to chromosome region 2p22-->p23. *Cytogenetic and Genome Research*, **1993**, 63, 192-3	1.9	6

73	Fluorescence lifetime imaging of intracellular calcium. *Journal of Fluorescence*, **1993**, 3, 161-7	2.4	1
72	Cloning and expression of an inwardly rectifying ATP-regulated potassium channel. *Nature*, **1993**, 362, 31-8	50.4	871
71	On the mechanism of inhibition of KATP channels by glibenclamide in rat ventricular myocytes. *Journal of Cardiovascular Electrophysiology*, **1993**, 4, 38-47	2.7	41
70	Calcium current in single human cardiac myocytes. *Journal of Cardiovascular Electrophysiology*, **1993**, 4, 422-37	2.7	20
69	The mechanism by which cytoplasmic protons inhibit the sodium-calcium exchanger in guinea-pig heart cells. *Journal of Physiology*, **1993**, 466, 481-99	3.9	65
68	Scorpion toxins targeted against the sarcoplasmic reticulum Ca(2+)-release channel of skeletal and cardiac muscle. *Proceedings of the National Academy of Sciences of the United States of America*, **1992**, 89, 12185-9	11.5	121
67	Expression of the Na-Ca exchanger in diverse tissues: a study using the cloned human cardiac Na-Ca exchanger. *American Journal of Physiology - Cell Physiology*, **1992**, 263, C1241-9	5.4	125
66	Immunofluorescence localization of the Na-Ca exchanger in heart cells. *American Journal of Physiology - Cell Physiology*, **1992**, 263, C545-50	5.4	92
65	Thapsigargin inhibits contraction and Ca2+ transient in cardiac cells by specific inhibition of the sarcoplasmic reticulum Ca2+ pump. *Journal of Biological Chemistry*, **1992**, 267, 12545-51	5.4	103
64	Molecular operations of the sodium-calcium exchanger revealed by conformation currents. *Nature*, **1991**, 349, 621-4	50.4	143
63	Properties of L-type calcium channel gating current in isolated guinea pig ventricular myocytes. *Journal of General Physiology*, **1991**, 98, 265-85	3.4	50
62	ATP-sensitive potassium channel modulation of the guinea pig ventricular action potential and contraction. *Circulation Research*, **1991**, 68, 280-7	15.7	225
61	Angiotensin-induced desensitization of the phosphoinositide pathway in cardiac cells occurs at the level of the receptor. *Circulation Research*, **1991**, 69, 800-9	15.7	63
60	Response. *Science*, **1991**, 251, 1371	33.3	11
59	Ca2+ and voltage inactivate Ca2+ channels in guinea-pig ventricular myocytes through independent mechanisms. *Journal of Physiology*, **1991**, 444, 257-68	3.9	120
58	Photorelease of Ca2+ produces Na-Ca exchange currents and Na-Ca exchange "gating" currents. *Annals of the New York Academy of Sciences*, **1991**, 639, 61-70	6.5	10
57	Voltage-dependent block of the Na-Ca exchanger in heart muscle examined using giant excised patches from guinea pig cardiac myocytes. *Annals of the New York Academy of Sciences*, **1991**, 639, 172-6	6.5	4
56	ATP dependence of KATP channel kinetics in isolated membrane patches from rat ventricle. *Biophysical Journal*, **1991**, 60, 1164-77	2.9	56

55	Restoring forces in cardiac myocytes. Insight from relaxations induced by photolysis of caged ATP. *Biophysical Journal*, **1991**, 59, 1123-35	2.9	24
54	The mechanism of KATP channel inhibition by ATP. *Journal of General Physiology*, **1991**, 97, 1095-8	3.4	15
53	Molecular and cellular actions of platelet-activating factor in rat heart cells. *Journal of Clinical Investigation*, **1991**, 88, 2106-16	15.9	28
52	The regulation of ATP-sensitive K+ channel activity in intact and permeabilized rat ventricular myocytes. *Journal of Physiology*, **1990**, 423, 91-110	3.9	135
51	Measurement of intracellular Ca2+ in BC3H-1 muscle cells with Fura-2: relationship to acetylcholine receptor synthesis. *Cell Calcium*, **1990**, 11, 371-84	4	10
50	Real-time confocal microscopy and calcium measurements in heart muscle cells: towards the development of a fluorescence microscope with high temporal and spatial resolution. *Cell Calcium*, **1990**, 11, 121-30	4	58
49	Modulation of ATP-sensitive potassium channel activity by flash-photolysis of Qaged-ATPQn rat heart cells. *Pflugers Archiv European Journal of Physiology*, **1990**, 415, 510-2	4.6	23
48	Intracellular Ca transients in rat cardiac myocytes: role of Na-Ca exchange in excitation-contraction coupling. *American Journal of Physiology - Cell Physiology*, **1990**, 258, C944-54	5.4	134
47	Voltage-independent calcium release in heart muscle. *Science*, **1990**, 250, 565-8	33.3	175
46	Sodium-calcium exchange in excitable cells: fuzzy space. *Science*, **1990**, 248, 283	33.3	245
45	The role of ATP in energy-deprivation contractures in unloaded rat ventricular myocytes. *Canadian Journal of Physiology and Pharmacology*, **1990**, 68, 183-94	2.4	52
44	Excitation-contraction coupling in heart cells. Roles of the sodium-calcium exchange, the calcium current, and the sarcoplasmic reticulum. *Annals of the New York Academy of Sciences*, **1990**, 588, 190-206	6.5	22
43	Cellular origins of the transient inward current in cardiac myocytes. Role of fluctuations and waves of elevated intracellular calcium. *Circulation Research*, **1989**, 65, 115-26	15.7	204
42	Does voltage affect excitation-contraction coupling in the heart?. *Science*, **1989**, 246, 1640	33.3	1
41	Excitation-contraction coupling in heart muscle. *Molecular and Cellular Biochemistry*, **1989**, 89, 115-9	4.2	8
40	Nucleotide modulation of the activity of rat heart ATP-sensitive K+ channels in isolated membrane patches. *Journal of Physiology*, **1989**, 419, 193-211	3.9	237
39	The mechanism of early contractile failure of isolated rat ventricular myocytes subjected to complete metabolic inhibition. *Journal of Physiology*, **1989**, 413, 329-49	3.9	97
38	Intramembrane charge movement in guinea-pig and rat ventricular myocytes. *Journal of Physiology*, **1989**, 415, 601-24	3.9	34

37	Calcium Current and Excitation-Contraction Coupling in Heart. *Developments in Cardiovascular Medicine*, **1989**, 3-11		
36	Phorbol ester increases calcium current and simulates the effects of angiotensin II on cultured neonatal rat heart myocytes. *Circulation Research*, **1988**, 62, 347-57	15.7	223
35	Angiotensin II increases spontaneous contractile frequency and stimulates calcium current in cultured neonatal rat heart myocytes: insights into the underlying biochemical mechanisms. *Circulation Research*, **1988**, 62, 524-34	15.7	174
34	Anoxic contractile failure in rat heart myocytes is caused by failure of intracellular calcium release due to alteration of the action potential. *Proceedings of the National Academy of Sciences of the United States of America*, **1988**, 85, 6954-8	11.5	153
33	Changes in the calcium current of rat heart ventricular myocytes during development. *Journal of Physiology*, **1988**, 406, 115-46	3.9	139
32	Effects of changes of intracellular pH on contraction in sheep cardiac Purkinje fibers. *Journal of General Physiology*, **1987**, 89, 1015-32	3.4	70
31	Effect of membrane potential changes on the calcium transient in single rat cardiac muscle cells. *Science*, **1987**, 238, 1419-23	33.3	332
30	Calcium current in isolated neonatal rat ventricular myocytes. *Journal of Physiology*, **1987**, 391, 169-91	3.9	62
29	Cellular and subcellular heterogeneity of [Ca2+]i in single heart cells revealed by fura-2. *Science*, **1987**, 235, 325-8	33.3	327
28	The arrhythmogenic current ITI in the absence of electrogenic sodium-calcium exchange in sheep cardiac Purkinje fibres. *Journal of Physiology*, **1986**, 374, 201-19	3.9	71
27	Effects of membrane potential on intracellular calcium concentration in sheep Purkinje fibres in sodium-free solutions. *Journal of Physiology*, **1986**, 381, 193-203	3.9	14
26	A novel experimental chamber for single-cell voltage-clamp and patch-clamp applications with low electrical noise and excellent temperature and flow control. *Pflugers Archiv European Journal of Physiology*, **1986**, 406, 536-9	4.6	61
25	Electrophysiological effects of cardiac glycosides **1986**, 69-78		2
24	Na-Ca exchange: stoichiometry and electrogenicity. *American Journal of Physiology - Cell Physiology*, **1985**, 248, C189-202	5.4	217
23	Lidocaine negative inotropic and antiarrhythmic actions. Dependence on shortening of action potential duration and reduction of intracellular sodium activity. *Circulation Research*, **1985**, 57, 578-90	15.7	75
22	Ryanodine block of calcium oscillations in heart muscle and the sodium-tension relationship. *Federation Proceedings*, **1985**, 44, 2964-9		13
21	The effects of intracellular Na on contraction and intracellular pH in mammalian cardiac muscle. *Advances in Myocardiology*, **1985**, 5, 313-30		6
20	The quantitative relationship between twitch tension and intracellular sodium activity in sheep cardiac Purkinje fibres. *Journal of Physiology*, **1984**, 355, 251-66	3.9	102

19	Sodium pump stoicheiometry determined by simultaneous measurements of sodium efflux and membrane current in barnacle. *Journal of Physiology*, **1984**, 348, 665-77	3.9	21
18	The role of intracellular sodium activity in the anti-arrhythmic action of local anaesthetics in sheep Purkinje fibres. *Journal of Physiology*, **1983**, 340, 239-57	3.9	63
17	Active transport and inotropic state in guinea pig left atrium. *Circulation Research*, **1983**, 53, 834-6	15.7	11
16	Effects of extracellular sodium on calcium efflux and membrane current in single muscle cells from the barnacle. *Journal of Physiology*, **1983**, 341, 325-39	3.9	25
15	The control of tonic tension by membrane potential and intracellular sodium activity in the sheep cardiac Purkinje fibre. *Journal of Physiology*, **1983**, 335, 723-43	3.9	113
14	Ca2+ ions can affect intracellular pH in mammalian cardiac muscle. *Nature*, **1983**, 301, 522-4	50.4	198
13	The effects of sodium pump activity on the slow inward current in sheep cardiac Purkinje fibres. *Proceedings of the Royal Society of London Series B, Containing Papers of A Biological Character*, **1982**, 214, 249-62		28
12	The dependence of sodium pumping and tension on intracellular sodium activity in voltage-clamped sheep Purkinje fibres. *Journal of Physiology*, **1981**, 317, 163-87	3.9	131
11	The effects of rubidium ions and membrane potentials on the intracellular sodium activity of sheep Purkinje fibres. *Journal of Physiology*, **1981**, 317, 189-205	3.9	68
10	The Electrogenic Na-K Pump in the Sheep Cardiac Purkinje Fibre **1981**, 156-163		3
9	Characterization of the electrogenic sodium pump in cardiac Purkinje fibres. *Journal of Physiology*, **1980**, 303, 441-74	3.9	135
8	The relationship between sodium pump activity and twitch tension in cardiac Purkinje fibres. *Journal of Physiology*, **1980**, 303, 475-94	3.9	40
7	Thick slurry bevelling: a new technique for bevelling extremely fine microelectrodes and micropipettes. *Pflugers Archiv European Journal of Physiology*, **1979**, 381, 287-8	4.6	67
6	The role of the sodium pump in the effects of potassium-depleted solutions on mammalian cardiac muscle. *Journal of Physiology*, **1979**, 294, 279-301	3.9	86
5	Inotropic and arrhythmogenic effects of potassium-depleted solutions on mammalian cardiac muscle. *Journal of Physiology*, **1979**, 294, 255-77	3.9	132
4	Role of calcium ions in transient inward currents and aftercontractions induced by strophanthidin in cardiac Purkinje fibres. *Journal of Physiology*, **1978**, 281, 187-208	3.9	522
3	Arrhythmogenic effects of hypokalaemia on mammalian ventricular muscle [proceedings]. *Journal of Physiology*, **1978**, 280, 74P-75P	3.9	4
2	On the Inotropic and Arrhythmogenic Effects of Digitalis. *International Boehringer Mannheim Symposia*, **1977**, 331-343		

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