

W J Lederer

List of Publications by Year in descending order

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185
papers

27,909
citations

5574

82
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5255

165
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186
all docs

186
docs citations

186
times ranked

13290
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Calcium Sparks: Elementary Events Underlying Excitation-Contraction Coupling in Heart Muscle. Science, 1993, 262, 740-744. | 12.6 | 1,850 |
| 2 | Sodium/Calcium Exchange: Its Physiological Implications. Physiological Reviews, 1999, 79, 763-854. | 28.8 | 1,551 |
| 3 | Relaxation of Arterial Smooth Muscle by Calcium Sparks. Science, 1995, 270, 633-637. | 12.6 | 1,306 |
| 4 | Cloning and expression of an inwardly rectifying ATP-regulated potassium channel. Nature, 1993, 362, 31-38. | 27.8 | 933 |
| 5 | Ankyrin-B mutation causes type 4 long-QT cardiac arrhythmia and sudden cardiac death. Nature, 2003, 421, 634-639. | 27.8 | 926 |
| 6 | Defective Excitation-Contraction Coupling in Experimental Cardiac Hypertrophy and Heart Failure. Science, 1997, 276, 800-806. | 12.6 | 715 |
| 7 | FKBP12.6 Deficiency and Defective Calcium Release Channel (Ryanodine Receptor) Function Linked to Exercise-Induced Sudden Cardiac Death. Cell, 2003, 113, 829-840. | 28.9 | 683 |
| 8 | Role of calcium ions in transient inward currents and aftercontractions induced by strophanthidin in cardiac Purkinje fibres.. Journal of Physiology, 1978, 281, 187-208. | 2.9 | 609 |
| 9 | Calcium sparks in smooth muscle. American Journal of Physiology - Cell Physiology, 2000, 278, C235-C256. | 4.6 | 571 |
| 10 | The control of calcium release in heart muscle. Science, 1995, 268, 1045-1049. | 12.6 | 540 |
| 11 | Calcium Sparks. Physiological Reviews, 2008, 88, 1491-1545. | 28.8 | 540 |
| 12 | Calmodulin kinase II inhibition protects against structural heart disease. Nature Medicine, 2005, 11, 409-417. | 30.7 | 526 |
| 13 | Calcium sparks and $[Ca^{2+}]_i$ waves in cardiac myocytes. American Journal of Physiology - Cell Physiology, 1996, 270, C148-C159. | 4.6 | 493 |
| 14 | X-ROS Signaling: Rapid Mechano-Chemo Transduction in Heart. Science, 2011, 333, 1440-1445. | 12.6 | 485 |
| 15 | Orphaned ryanodine receptors in the failing heart. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 4305-4310. | 7.1 | 409 |
| 16 | Transient inward current underlying arrhythmogenic effects of cardiotonic steroids in Purkinje fibres.. Journal of Physiology, 1976, 263, 73-100. | 2.9 | 377 |
| 17 | Cellular and subcellular heterogeneity of $[Ca^{2+}]_i$ in single heart cells revealed by fura-2. Science, 1987, 235, 325-328. | 12.6 | 365 |
| 18 | Effect of membrane potential changes on the calcium transient in single rat cardiac muscle cells. Science, 1987, 238, 1419-1423. | 12.6 | 361 |

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 19 | Suppression of voltage-gated L-type Ca ²⁺ 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, 4182-4187. | 7.1 | 355 |
| 20 | Spatial non-uniformities in [Ca ²⁺] _i during excitation-contraction coupling in cardiac myocytes. Biophysical Journal, 1994, 67, 1942-1956. | 0.5 | 353 |
| 21 | Rapid adaptation of cardiac ryanodine receptors: modulation by Mg ²⁺ and phosphorylation. Science, 1995, 267, 1997-2000. | 12.6 | 337 |
| 22 | Leaky Ca ²⁺ release channel/ryanodine receptor 2 causes seizures and sudden cardiac death in mice. Journal of Clinical Investigation, 2008, 118, 2230-45. | 8.2 | 318 |
| 23 | Two mechanisms of quantized calcium release in skeletal muscle. Nature, 1996, 379, 455-458. | 27.8 | 310 |
| 24 | Mitofusin-2 Maintains Mitochondrial Structure and Contributes to Stress-Induced Permeability Transition in Cardiac Myocytes. Molecular and Cellular Biology, 2011, 31, 1309-1328. | 2.3 | 306 |
| 25 | Mitochondrial calcium uptake. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 10479-10486. | 7.1 | 301 |
| 26 | Sodium-calcium exchange in excitable cells: fuzzy space. Science, 1990, 248, 283-283. | 12.6 | 284 |
| 27 | Nucleotide modulation of the activity of rat heart ATP-sensitive K ⁺ channels in isolated membrane patches.. Journal of Physiology, 1989, 419, 193-211. | 2.9 | 280 |
| 28 | Ca ²⁺ channels, ryanodine receptors and Ca ²⁺ -activated K ⁺ channels: a functional unit for regulating arterial tone. Acta Physiologica Scandinavica, 1998, 164, 577-587. | 2.2 | 274 |
| 29 | ATP-sensitive potassium channel modulation of the guinea pig ventricular action potential and contraction.. Circulation Research, 1991, 68, 280-287. | 4.5 | 253 |
| 30 | Phorbol ester increases calcium current and simulates the effects of angiotensin II on cultured neonatal rat heart myocytes.. Circulation Research, 1988, 62, 347-357. | 4.5 | 249 |
| 31 | Na-Ca exchange: stoichiometry and electrogenicity. American Journal of Physiology - Cell Physiology, 1985, 248, C189-C202. | 4.6 | 241 |
| 32 | Cellular origins of the transient inward current in cardiac myocytes. Role of fluctuations and waves of elevated intracellular calcium.. Circulation Research, 1989, 65, 115-126. | 4.5 | 228 |
| 33 | Microtubules Underlie Dysfunction in Duchenne Muscular Dystrophy. Science Signaling, 2012, 5, ra56. | 3.6 | 222 |
| 34 | Ca ²⁺ ions can affect intracellular pH in mammalian cardiac muscle. Nature, 1983, 301, 522-524. | 27.8 | 218 |
| 35 | 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, 7906-7910. | 7.1 | 209 |
| 36 | Relation Between the Sarcolemmal Ca ²⁺ Current and Ca ²⁺ Sparks and Local Control Theories for Cardiac Excitation-Contraction Coupling. Circulation Research, 1996, 78, 166-171. | 4.5 | 201 |

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 37 | A Simple Numerical Model of Calcium Spark Formation and Detection in Cardiac Myocytes. Biophysical Journal, 1998, 75, 15-32. | 0.5 | 198 |
| 38 | Frequency modulation of Ca^{2+} sparks is involved in regulation of arterial diameter by cyclic nucleotides. American Journal of Physiology - Cell Physiology, 1998, 274, C1346-C1355. | 4.6 | 194 |
| 39 | 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, 524-534. | 4.5 | 192 |
| 40 | Voltage-independent calcium release in heart muscle. Science, 1990, 250, 565-568. | 12.6 | 186 |
| 41 | Dual regulation of Ca^{2+} /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, 9659-9663. | 7.1 | 182 |
| 42 | Ca^{2+} blinks: Rapid nanoscopic store calcium signaling. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 3099-3104. | 7.1 | 182 |
| 43 | Heart Failure After Myocardial Infarction. Circulation, 2001, 104, 688-693. | 1.6 | 180 |
| 44 | Excitation-contraction coupling in heart: new insights from Ca^{2+} sparks. Cell Calcium, 1996, 20, 129-140. | 2.4 | 176 |
| 45 | Mutually exclusive and cassette exons underlie alternatively spliced isoforms of the Na/Ca exchanger. Journal of Biological Chemistry, 1994, 269, 5145-9. | 3.4 | 174 |
| 46 | 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, 6954-6958. | 7.1 | 170 |
| 47 | Ca^{2+} Flux Through Promiscuous Cardiac Na^{+} Channels: Slip-Mode Conductance. Science, 1998, 279, 1027-1033. | 12.6 | 164 |
| 48 | Inotropic and arrhythmogenic effects of potassium-depleted solutions on mammalian cardiac muscle.. Journal of Physiology, 1979, 294, 255-277. | 2.9 | 162 |
| 49 | Changes in the calcium current of rat heart ventricular myocytes during development.. Journal of Physiology, 1988, 406, 115-146. | 2.9 | 161 |
| 50 | Molecular operations of the sodium-calcium exchanger revealed by conformation currents. Nature, 1991, 349, 621-624. | 27.8 | 159 |
| 51 | The regulation of ATP-sensitive K^{+} channel activity in intact and permeabilized rat ventricular myocytes.. Journal of Physiology, 1990, 423, 91-110. | 2.9 | 156 |
| 52 | Characterization of the electrogenic sodium pump in cardiac Purkinje fibres. Journal of Physiology, 1980, 303, 441-474. | 2.9 | 154 |
| 53 | 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-C954. | 4.6 | 153 |
| 54 | The dependence of sodium pumping and tension on intracellular sodium activity in voltage-clamped sheep Purkinje fibres.. Journal of Physiology, 1981, 317, 163-187. | 2.9 | 149 |

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|----|---|-----|-----------|
| 55 | 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-C1249. | 4.6 | 142 |
| 56 | Modulation of cardiac ryanodine receptors of swine and rabbit by a phosphorylationâ€dephosphorylation mechanism.. Journal of Physiology, 1995, 487, 609-622. | 2.9 | 142 |
| 57 | 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, 12185-12189. | 7.1 | 134 |
| 58 | NCLX: The mitochondrial sodium calcium exchanger. Journal of Molecular and Cellular Cardiology, 2013, 59, 205-213. | 1.9 | 132 |
| 59 | Excitationâ€“contraction coupling changes during postnatal cardiac development. Journal of Molecular and Cellular Cardiology, 2010, 48, 379-386. | 1.9 | 131 |
| 60 | Ca2+ and voltage inactivate Ca2+ channels in guineaâ€pig ventricular myocytes through independent mechanisms.. Journal of Physiology, 1991, 444, 257-268. | 2.9 | 129 |
| 61 | Calcium Sparks and Excitation-Contraction Coupling in Phospholamban-Deficient Mouse Ventricular Myocytes. Journal of Physiology, 1997, 503, 21-29. | 2.9 | 129 |
| 62 | The control of tonic tension by membrane potential and intracellular sodium activity in the sheep cardiac Purkinje fibre.. Journal of Physiology, 1983, 335, 723-743. | 2.9 | 127 |
| 63 | Role of Sodium Channel Deglycosylation in the Genesis of Cardiac Arrhythmias in Heart Failure. Journal of Biological Chemistry, 2001, 276, 28197-28203. | 3.4 | 123 |
| 64 | The quantitative relationship between twitch tension and intracellular sodium activity in sheep cardiac Purkinje fibres.. Journal of Physiology, 1984, 355, 251-266. | 2.9 | 120 |
| 65 | Use of thapsigargin to study Ca2+ homeostasis in cardiac cells. Bioscience Reports, 1995, 15, 341-349. | 2.4 | 120 |
| 66 | The mechanism of early contractile failure of isolated rat ventricular myocytes subjected to complete metabolic inhibition.. Journal of Physiology, 1989, 413, 329-349. | 2.9 | 113 |
| 67 | Dynamics of Calcium Sparks and Calcium Leak in the Heart. Biophysical Journal, 2011, 101, 1287-1296. | 0.5 | 112 |
| 68 | Fluorescence lifetime imaging of intracellular calcium in COS cells using Quin-2. Cell Calcium, 1994, 15, 7-27. | 2.4 | 110 |
| 69 | The Ca2+ leak paradox and â€œrogue ryanodine receptorsâ€ SR Ca2+ efflux theory and practice. Progress in Biophysics and Molecular Biology, 2006, 90, 172-185. | 2.9 | 110 |
| 70 | 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. | 3.4 | 109 |
| 71 | Cellular and functional defects in a mouse model of heart failure. American Journal of Physiology - Heart and Circulatory Physiology, 2000, 279, H3101-H3112. | 3.2 | 108 |
| 72 | X-ROS signaling in the heart and skeletal muscle: Stretch-dependent local ROS regulates [Ca2+]i. Journal of Molecular and Cellular Cardiology, 2013, 58, 172-181. | 1.9 | 107 |

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| 73 | Immunofluorescence localization of the Na-Ca exchanger in heart cells. American Journal of Physiology - Cell Physiology, 1992, 263, C545-C550. | 4.6 | 103 |
| 74 | The role of the sodium pump in the effects of potassium-depleted solutions on mammalian cardiac muscle. Journal of Physiology, 1979, 294, 279-301. | 2.9 | 100 |
| 75 | Ca ²⁺ diffusion and sarcoplasmic reticulum transport both contribute to [Ca ²⁺] _i decline during Ca ²⁺ sparks in rat ventricular myocytes.. Journal of Physiology, 1996, 496, 575-581. | 2.9 | 100 |
| 76 | 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, 941-950. | 1.9 | 99 |
| 77 | Superresolution Modeling of Calcium Release in the Heart. Biophysical Journal, 2014, 107, 3018-3029. | 0.5 | 96 |
| 78 | Two-photon-excitation fluorescence imaging of three-dimensional calcium-ion activity. Applied Optics, 1994, 33, 662. | 2.1 | 93 |
| 79 | 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-H2567. | 3.2 | 91 |
| 80 | Probing the Outer Mitochondrial Membrane in Cardiac Mitochondria with Nanoparticles. Biophysical Journal, 2007, 92, 1058-1071. | 0.5 | 87 |
| 81 | Lidocaine's negative inotropic and antiarrhythmic actions. Dependence on shortening of action potential duration and reduction of intracellular sodium activity.. Circulation Research, 1985, 57, 578-590. | 4.5 | 85 |
| 82 | Dynamic modulation of excitation-contraction coupling by protein phosphatases in rat ventricular myocytes.. Journal of Physiology, 1996, 493, 793-800. | 2.9 | 83 |
| 83 | Novel Subunit Composition of a Renal Epithelial KATPChannel. Journal of Biological Chemistry, 1998, 273, 14165-14171. | 3.4 | 82 |
| 84 | Mitochondria in cardiomyocyte Ca ²⁺ signaling. International Journal of Biochemistry and Cell Biology, 2009, 41, 1957-1971. | 2.8 | 82 |
| 85 | Isoform-Specific Regulation of the Na ⁺ /Ca ²⁺ -Exchanger in Rat Astrocytes and Neurons by PKA. Journal of Neuroscience, 1998, 18, 4833-4841. | 3.6 | 81 |
| 86 | Propagation of excitation-contraction coupling into ventricular myocytes. Pflugers Archiv European Journal of Physiology, 1994, 428, 415-417. | 2.8 | 78 |
| 87 | Local recovery of Ca ²⁺ release in rat ventricular myocytes. Journal of Physiology, 2005, 565, 441-447. | 2.9 | 78 |
| 88 | The arrhythmogenic current I _{TI} in the absence of electrogenic sodium-calcium exchange in sheep cardiac Purkinje fibres.. Journal of Physiology, 1986, 374, 201-219. | 2.9 | 76 |
| 89 | Effects of changes of intracellular pH on contraction in sheep cardiac Purkinje fibers.. Journal of General Physiology, 1987, 89, 1015-1032. | 1.9 | 76 |
| 90 | The effects of rubidium ions and membrane potentials on the intracellular sodium activity of sheep Purkinje fibres.. Journal of Physiology, 1981, 317, 189-205. | 2.9 | 75 |

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| 91 | The mechanism by which cytoplasmic protons inhibit the sodium-calcium exchanger in guinea-pig heart cells. <i>Journal of Physiology</i> , 1993, 466, 481-99. | 2.9 | 75 |
| 92 | Alterations of atrial Ca ²⁺ handling as cause and consequence of atrial fibrillation. <i>Cardiovascular Research</i> , 2011, 89, 722-733. | 3.8 | 74 |
| 93 | Thick slurry bevelling. <i>Pflugers Archiv European Journal of Physiology</i> , 1979, 381, 287-288. | 2.8 | 71 |
| 94 | Calcium current in isolated neonatal rat ventricular myocytes.. <i>Journal of Physiology</i> , 1987, 391, 169-191. | 2.9 | 71 |
| 95 | Nuclear Ca ²⁺ regulates cardiomyocyte function. <i>Cell Calcium</i> , 2008, 44, 230-242. | 2.4 | 71 |
| 96 | The role of intracellular sodium activity in the antiarrhythmic action of local anaesthetics in sheep Purkinje fibres.. <i>Journal of Physiology</i> , 1983, 340, 239-257. | 2.9 | 70 |
| 97 | Angiotensin-induced desensitization of the phosphoinositide pathway in cardiac cells occurs at the level of the receptor.. <i>Circulation Research</i> , 1991, 69, 800-809. | 4.5 | 69 |
| 98 | Myosin-binding protein C corrects an intrinsic inhomogeneity in cardiac excitation-contraction coupling. <i>Science Advances</i> , 2015, 1, . | 10.3 | 69 |
| 99 | A novel experimental chamber for single-cell voltage-clamp and patch-clamp applications with low electrical noise and excellent temperature and flow control. <i>Pflugers Archiv European Journal of Physiology</i> , 1986, 406, 536-539. | 2.8 | 64 |
| 100 | Molecular identification of a TTX-sensitive Ca ²⁺ current. <i>American Journal of Physiology - Cell Physiology</i> , 2001, 280, C1327-C1339. | 4.6 | 64 |
| 101 | Functional differences between cardiac and renal isoforms of the rat Na ⁺ + Ca ²⁺ exchanger NCX1 expressed in <i>Xenopus</i> oocytes. <i>Journal of Physiology</i> , 2000, 529, 599-610. | 2.9 | 63 |
| 102 | The action of Na ⁺ as a cofactor in the inhibition by cytoplasmic protons of the cardiac Na ⁺ + Ca ²⁺ exchanger in the guinea pig.. <i>Journal of Physiology</i> , 1994, 480, 9-20. | 2.9 | 62 |
| 103 | Real-time confocal microscopy and calcium measurements in heart muscle cells: Towards the development of a fluorescence microscope with high temporal and spatial resolution. <i>Cell Calcium</i> , 1990, 11, 121-130. | 2.4 | 61 |
| 104 | ATP dependence of KATP channel kinetics in isolated membrane patches from rat ventricle. <i>Biophysical Journal</i> , 1991, 60, 1164-1177. | 0.5 | 60 |
| 105 | Ca Sparks Do Not Explain all Ryanodine Receptor-Mediated SR Ca Leak in Mouse Ventricular Myocytes. <i>Biophysical Journal</i> , 2010, 98, 2111-2120. | 0.5 | 58 |
| 106 | The role of ATP in energy-deprivation contractures in unloaded rat ventricular myocytes. <i>Canadian Journal of Physiology and Pharmacology</i> , 1990, 68, 183-194. | 1.4 | 56 |
| 107 | Properties of L-type calcium channel gating current in isolated guinea pig ventricular myocytes.. <i>Journal of General Physiology</i> , 1991, 98, 265-285. | 1.9 | 56 |
| 108 | STIM1 enhances SR Ca ²⁺ content through binding phospholamban in rat ventricular myocytes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, E4792-801. | 7.1 | 55 |

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|-----|---|------|-----------|
| 109 | Partial Inhibition of Ca^{2+} Current by Methoxyverapamil (D600) Reveals Spatial Nonuniformities in $[\text{Ca}^{2+}]_{\text{sub}}$ During Excitation-Contraction Coupling in Cardiac Myocytes. <i>Circulation Research</i> , 1995, 76, 236-241. | 4.5 | 55 |
| 110 | Effect of the immunosuppressant FK506 on excitation-contraction coupling and outward K^{+} currents in rat ventricular myocytes. <i>Journal of Physiology</i> , 1997, 501, 509-516. | 2.9 | 54 |
| 111 | Calcium Biology of the Transverse Tubules in Heart. <i>Annals of the New York Academy of Sciences</i> , 2005, 1047, 99-111. | 3.8 | 54 |
| 112 | The relationship between sodium pump activity and twitch tension in cardiac Purkinje fibres. <i>Journal of Physiology</i> , 1980, 303, 475-494. | 2.9 | 48 |
| 113 | Intramembrane charge movement in guinea pig and rat ventricular myocytes. <i>Journal of Physiology</i> , 1989, 415, 601-624. | 2.9 | 47 |
| 114 | STIM1 Ca^{2+} signaling modulates automaticity of the mouse sinoatrial node. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, E5618-27. | 7.1 | 47 |
| 115 | Dynamics of the mitochondrial permeability transition pore: Transient and permanent opening events. <i>Archives of Biochemistry and Biophysics</i> , 2019, 666, 31-39. | 3.0 | 46 |
| 116 | On the Mechanism of Inhibition of KATP Channels by Glibenclamide in Rat Ventricular Myocytes. <i>Journal of Cardiovascular Electrophysiology</i> , 1993, 4, 38-47. | 1.7 | 43 |
| 117 | Models of Ca^{2+} release channel adaptation. <i>Science</i> , 1995, 267, 2009-2010. | 12.6 | 42 |
| 118 | Dynamic local changes in sarcoplasmic reticulum calcium: Physiological and pathophysiological roles. <i>Journal of Molecular and Cellular Cardiology</i> , 2012, 52, 304-311. | 1.9 | 42 |
| 119 | Twenty Years of Calcium Imaging: Cell Physiology to Dye For. <i>Molecular Interventions: Pharmacological Perspectives From Biology, Chemistry and Genomics</i> , 2005, 5, 112-127. | 3.4 | 42 |
| 120 | Cardiac Na-Ca Exchange and pH. <i>Annals of the New York Academy of Sciences</i> , 1996, 779, 182-198. | 3.8 | 40 |
| 121 | $\text{Na}^{+}/\text{Ca}^{2+}$ exchanger in <i>Drosophila</i> : cloning, expression, and transport differences. <i>American Journal of Physiology - Cell Physiology</i> , 1997, 273, C257-C265. | 4.6 | 40 |
| 122 | Aqueous Diffusion Pathways as a Part of the Ventricular Cell Ultrastructure. <i>Biophysical Journal</i> , 2006, 90, 1107-1119. | 0.5 | 40 |
| 123 | Functional groups of ryanodine receptors in rat ventricular cells. <i>Journal of Physiology</i> , 2007, 583, 251-269. | 2.9 | 40 |
| 124 | Diastolic transient inward current in long QT syndrome type 3 is caused by Ca^{2+} overload and inhibited by ranolazine. <i>Journal of Molecular and Cellular Cardiology</i> , 2009, 47, 326-334. | 1.9 | 40 |
| 125 | Activation of Na-Ca exchange current by photolysis of "caged calcium". <i>Biophysical Journal</i> , 1993, 65, 882-891. | 0.5 | 39 |
| 126 | Overexpression of β_2 -Adrenergic Receptors cAMP-dependent Protein Kinase Phosphorylates and Modulates Slow Delayed Rectifier Potassium Channels Expressed in Murine Heart. <i>Journal of Biological Chemistry</i> , 2004, 279, 40778-40787. | 3.4 | 37 |

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| 127 | Ryanodine receptor sensitivity governs the stability and synchrony of local calcium release during cardiac excitation-contraction coupling. <i>Journal of Molecular and Cellular Cardiology</i> , 2016, 92, 82-92. | 1.9 | 37 |
| 128 | The effects of sodium pump activity on the slow inward current in sheep cardiac Purkinje fibres. <i>Proceedings of the Royal Society of London Series B, Containing Papers of A Biological Character</i> , 1982, 214, 249-262. | 1.8 | 36 |
| 129 | Restitution of Ca ²⁺ Release and Vulnerability to Arrhythmias. <i>Journal of Cardiovascular Electrophysiology</i> , 2006, 17, S64-S70. | 1.7 | 36 |
| 130 | Repriming and activation alter the frequency of stereotyped discrete Ca ²⁺ release events in frog skeletal muscle.. <i>Journal of Physiology</i> , 1996, 497, 581-588. | 2.9 | 34 |
| 131 | Sarcoplasmic reticulum in heart failure: central player or bystander?. <i>Cardiovascular Research</i> , 1998, 37, 346-351. | 3.8 | 33 |
| 132 | On the Adjacency Matrix of RyR2 Cluster Structures. <i>PLoS Computational Biology</i> , 2015, 11, e1004521. | 3.2 | 33 |
| 133 | On Establishing Primary Cultures of Neonatal Rat Ventricular Myocytes for Analysis Over Long Periods. <i>Journal of Cardiovascular Electrophysiology</i> , 1994, 5, 50-62. | 1.7 | 31 |
| 134 | Subcellular Ca ²⁺ signaling in the heart: the role of ryanodine receptor sensitivity. <i>Journal of General Physiology</i> , 2010, 136, 135-142. | 1.9 | 31 |
| 135 | Molecular and cellular actions of platelet-activating factor in rat heart cells.. <i>Journal of Clinical Investigation</i> , 1991, 88, 2106-2116. | 8.2 | 29 |
| 136 | Effects of extracellular sodium on calcium efflux and membrane current in single muscle cells from the barnacle.. <i>Journal of Physiology</i> , 1983, 341, 325-339. | 2.9 | 28 |
| 137 | Restoring forces in cardiac myocytes. Insight from relaxations induced by photolysis of caged ATP. <i>Biophysical Journal</i> , 1991, 59, 1123-1135. | 0.5 | 27 |
| 138 | The Molecular Biology of the Na ⁺ Ca ²⁺ Exchanger and Its Functional Roles in Heart, Smooth Muscle Cells, Neurons, Glia, Lymphocytes, and Nonexcitable Cells^a. <i>Annals of the New York Academy of Sciences</i> , 1996, 779, 7-17. | 3.8 | 26 |
| 139 | Sodium pump stoichiometry determined by simultaneous measurements of sodium efflux and membrane current in barnacle.. <i>Journal of Physiology</i> , 1984, 348, 665-677. | 2.9 | 25 |
| 140 | Modulation of ATP-sensitive potassium channel activity by flash-photolysis of "caged-ATP" in rat heart cells. <i>Pflügers Archiv European Journal of Physiology</i> , 1990, 415, 510-512. | 2.8 | 25 |
| 141 | Excitation-Contraction Coupling in Heart Cells.. <i>Annals of the New York Academy of Sciences</i> , 1990, 588, 190-206. | 3.8 | 24 |
| 142 | Calcium Current in Single Human Cardiac Myocytes. <i>Journal of Cardiovascular Electrophysiology</i> , 1993, 4, 422-437. | 1.7 | 24 |
| 143 | The cardiac IP ₃ receptor: Uncovering the role of "the other" calcium-release channel. <i>Journal of Molecular and Cellular Cardiology</i> , 2008, 45, 159-161. | 1.9 | 24 |
| 144 | Unique atrial myocyte Ca ²⁺ signaling. <i>Journal of Molecular and Cellular Cardiology</i> , 2009, 46, 448-451. | 1.9 | 24 |

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|-----|--|------|-----------|
| 145 | 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-H2052. | 3.2 | 22 |
| 146 | Distribution of ryanodine receptors in rat ventricular myocytes. Journal of Muscle Research and Cell Motility, 2009, 30, 161-170. | 2.0 | 22 |
| 147 | Ca ²⁺ dynamics in the mitochondria - state of the art. Journal of Molecular and Cellular Cardiology, 2011, 51, 627-631. | 1.9 | 22 |
| 148 | Phosphorylation and Other Conundrums of Na/Ca Exchanger, NCX1. Annals of the New York Academy of Sciences, 2007, 1099, 103-118. | 3.8 | 19 |
| 149 | Effects of membrane potential on intracellular calcium concentration in sheep Purkinje fibres in sodium-free solutions.. Journal of Physiology, 1986, 381, 193-203. | 2.9 | 16 |
| 150 | The mechanism of KATP channel inhibition by ATP.. Journal of General Physiology, 1991, 97, 1095-1098. | 1.9 | 15 |
| 151 | Functional expression of the human cardiac Na ⁺ /Ca ²⁺ exchanger in Sf9 cells: rapid and specific Ni ²⁺ transport. Cell Calcium, 1999, 25, 9-17. | 2.4 | 15 |
| 152 | Ryanodine block of calcium oscillations in heart muscle and the sodium-tension relationship. Federation Proceedings, 1985, 44, 2964-9. | 1.3 | 14 |
| 153 | Alternative Splicing of the Na ⁺ -Ca ²⁺ Exchanger Gene, NCX1. Annals of the New York Academy of Sciences, 1996, 779, 46-57. | 3.8 | 13 |
| 154 | Immunofluorescence Localization of SERCA2a and the Phosphorylated Forms of Phospholamban in Intact Rat Cardiac Ventricular Myocytes a. Annals of the New York Academy of Sciences, 1998, 853, 273-279. | 3.8 | 13 |
| 155 | Ni ²⁺ transport by the human Na ⁺ /Ca ²⁺ exchanger expressed in Sf 9 cells. American Journal of Physiology - Cell Physiology, 1999, 276, C1184-C1192. | 4.6 | 13 |
| 156 | Does the Goldilocks Principle apply to calcium release restitution in heart cells?. Journal of Molecular and Cellular Cardiology, 2012, 52, 3-6. | 1.9 | 13 |
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