

# Javier Alvarez

## List of Publications by Year in descending order

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90  
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4,607  
citations

94269

37  
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102304

66  
g-index

94  
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94  
docs citations

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times ranked

3626  
citing authors

#	ARTICLE	IF	CITATIONS
1	Chromaffin-cell stimulation triggers fast millimolar mitochondrial Ca <sup>2+</sup> transients that modulate secretion. <i>Nature Cell Biology</i> , 2000, 2, 57-61.	4.6	444
2	Transfected Aequorin in the Measurement of Cytosolic Ca <sup>2+</sup> Concentration ([Ca <sup>2+</sup> ] <sub>c</sub> ). <i>Journal of Biological Chemistry</i> , 1995, 270, 9896-9903.	1.6	342
3	Monitoring dynamic changes in free Ca <sup>2+</sup> concentration in the endoplasmic reticulum of intact cells.. <i>EMBO Journal</i> , 1995, 14, 5467-5475.	3.5	275
4	Cytochrome P-450 may link intracellular Ca <sup>2+</sup> stores with plasma membrane Ca <sup>2+</sup> influx. <i>Biochemical Journal</i> , 1991, 274, 193-197.	1.7	183
5	Ca <sup>2+</sup> -induced Ca <sup>2+</sup> Release in Chromaffin Cells Seen from inside the ER with Targeted Aequorin. <i>Journal of Cell Biology</i> , 1999, 144, 241-254.	2.3	170
6	Agonist-induced Ca <sup>2+</sup> influx in human neutrophils is secondary to the emptying of intracellular calcium stores. <i>Biochemical Journal</i> , 1991, 277, 73-79.	1.7	154
7	Dynamics of [Ca <sup>2+</sup> ] in the Endoplasmic Reticulum and Cytoplasm of Intact HeLa Cells. <i>Journal of Biological Chemistry</i> , 1997, 272, 27694-27699.	1.6	136
8	Direct activation of the mitochondrial calcium uniporter by natural plant flavonoids. <i>Biochemical Journal</i> , 2004, 384, 19-24.	1.7	128
9	Cytochrome P450 may regulate plasma membrane Ca <sup>2+</sup> permeability according to the filling state of the intracellular Ca <sup>2+</sup> stores. <i>FASEB Journal</i> , 1992, 6, 786-792.	0.2	122
10	Redistribution of Ca <sup>2+</sup> among cytosol and organelle during stimulation of bovine chromaffin cells. <i>FASEB Journal</i> , 2002, 16, 343-353.	0.2	114
11	Ca <sup>2+</sup> Homeostasis in the Endoplasmic Reticulum: Coexistence of High and Low [Ca <sup>2+</sup> ] Subcompartments in Intact HeLa Cells. <i>Journal of Cell Biology</i> , 1997, 139, 601-611.	2.3	110
12	Agonist-induced Ca <sup>2+</sup> influx into human platelets is secondary to the emptying of intracellular Ca <sup>2+</sup> stores. <i>Biochemical Journal</i> , 1991, 280, 783-789.	1.7	102
13	Measuring [Ca <sup>2+</sup> ] in the endoplasmic reticulum with aequorin. <i>Cell Calcium</i> , 2002, 32, 251-260.	1.1	102
14	Calcium microdomains in mitochondria and nucleus. <i>Cell Calcium</i> , 2006, 40, 513-525.	1.1	92
15	Mitochondrial Ca <sup>2+</sup> -induced Ca <sup>2+</sup> Release Mediated by the Ca <sup>2+</sup> Uniporter. <i>Molecular Biology of the Cell</i> , 2001, 12, 63-71.	0.9	84
16	Investigation of the structure and function of the human erythrocyte glucose transporter by proteolytic dissection. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1987, 905, 295-310.	1.4	83
17	The plasma membrane Na <sup>+</sup> /Ca <sup>2+</sup> exchange inhibitor KB-R7943 is also a potent inhibitor of the mitochondrial Ca <sup>2+</sup> uniporter. <i>British Journal of Pharmacology</i> , 2007, 151, 647-654.	2.7	82
18	[Ca <sup>2+</sup> ] Microdomains control agonist-induced Ca <sup>2+</sup> release in intact HeLa cells. <i>FASEB Journal</i> , 1997, 11, 881-885.	0.2	79

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19	A novel regulatory mechanism of the mitochondrial Ca <sup>2+</sup> uniporter revealed by the p38 mitogen-activated protein kinase inhibitor sb202190. <i>FASEB Journal</i> , 2002, 16, 1955-1957.	0.2	77
20	Silencing of the Charcot-Marie-Tooth disease-associated gene GDAP1 induces abnormal mitochondrial distribution and affects Ca <sup>2+</sup> homeostasis by reducing store-operated Ca <sup>2+</sup> entry. <i>Neurobiology of Disease</i> , 2013, 55, 140-151.	2.1	75
21	Functional measurements of [Ca <sup>2+</sup> ] in the endoplasmic reticulum using a herpes virus to deliver targeted aequorin. <i>Cell Calcium</i> , 1998, 24, 87-96.	1.1	73
22	Antitumor alkyl-lysophospholipid analog edelfosine induces apoptosis in pancreatic cancer by targeting endoplasmic reticulum. <i>Oncogene</i> , 2012, 31, 2627-2639.	2.6	66
23	Monitoring mitochondrial [Ca <sup>2+</sup> ] dynamics with rhod-2, ratiometric pericam and aequorin. <i>Cell Calcium</i> , 2010, 48, 61-69.	1.1	65
24	The mitochondrial Na <sup>+</sup> /Ca <sup>2+</sup> exchanger plays a key role in the control of cytosolic Ca <sup>2+</sup> oscillations. <i>Cell Calcium</i> , 2006, 40, 53-61.	1.1	59
25	Uptake of Ca <sup>2+</sup> and refilling of intracellular Ca <sup>2+</sup> stores in Ehrlich-ascites-tumour cells and in rat thymocytes. <i>Biochemical Journal</i> , 1990, 271, 535-540.	1.7	58
26	Control of plasma-membrane Ca <sup>2+</sup> entry by the intracellular Ca <sup>2+</sup> stores. Kinetic evidence for a short-lived mediator. <i>Biochemical Journal</i> , 1992, 288, 519-525.	1.7	55
27	Intravesicular Calcium Release Mediates the Motion and Exocytosis of Secretory Organelles. <i>Journal of Biological Chemistry</i> , 2008, 283, 22383-22389.	1.6	50
28	Modulation of Ca <sup>2+</sup> release and Ca <sup>2+</sup> oscillations in HeLa cells and fibroblasts by mitochondrial Ca <sup>2+</sup> uniporter stimulation. <i>Journal of Physiology</i> , 2007, 580, 39-49.	1.3	48
29	Modulation of mitochondrial Ca <sup>2+</sup> uptake by estrogen receptor agonists and antagonists. <i>British Journal of Pharmacology</i> , 2005, 145, 862-871.	2.7	46
30	Calcium dynamics in bovine adrenal medulla chromaffin cell secretory granules. <i>European Journal of Neuroscience</i> , 2008, 28, 1265-1274.	1.2	46
31	Functional roles of MICU1 and MICU2 in mitochondrial Ca <sup>2+</sup> uptake. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2016, 1858, 1110-1117.	1.4	46
32	Mitochondrial free [Ca <sup>2+</sup> ] dynamics measured with a novel low-Ca <sup>2+</sup> affinity aequorin probe. <i>Biochemical Journal</i> , 2012, 445, 371-376.	1.7	45
33	Effects of extremely-low-frequency electromagnetic fields on ion transport in several mammalian cells. <i>Bioelectromagnetics</i> , 1994, 15, 579-588.	0.9	43
34	Ca <sup>2+</sup> homeostasis in the endoplasmic reticulum measured with a new low-Ca <sup>2+</sup> -affinity targeted aequorin. <i>Cell Calcium</i> , 2013, 54, 37-45.	1.1	41
35	Control of Ca <sup>2+</sup> entry into HL60 and U937 human leukaemia cells by the filling state of the intracellular Ca <sup>2+</sup> stores. <i>Biochemical Journal</i> , 1993, 289, 761-766.	1.7	40
36	Conformational changes in concanavalin A associated with demetallization and Î±-methylmannose binding studied by Fourier transform infrared spectroscopy. <i>BBA - Proteins and Proteomics</i> , 1987, 916, 5-12.	2.1	38

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37	Calcium dynamics in catecholamine-containing secretory vesicles. <i>Cell Calcium</i> , 2005, 37, 555-564.	1.1	38
38	Dynamics of mitochondrial Ca <sup>2+</sup> uptake in MICU1-knockdown cells. <i>Biochemical Journal</i> , 2014, 458, 33-40.	1.7	35
39	Comparative effects of cytochrome P-450 inhibitors on Ca <sup>2+</sup> and Mn <sup>2+</sup> entry induced by agonists or by emptying the Ca <sup>2+</sup> stores of human neutrophils. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 1993, 1177, 127-133.	1.9	33
40	The Role of Ca <sup>2+</sup> Signaling in Aging and Neurodegeneration: Insights from <i>Caenorhabditis elegans</i> Models. <i>Cells</i> , 2020, 9, 204.	1.8	33
41	Intracellular Ca <sup>2+</sup> potentiates Na <sup>+</sup> /H <sup>+</sup> exchange and cell differentiation induced by phorbol ester in U937 cells. <i>FEBS Journal</i> , 1989, 183, 709-714.	0.2	31
42	Modulation of Histamine-induced Ca <sup>2+</sup> Release by Protein Kinase C. <i>Journal of Biological Chemistry</i> , 2003, 278, 49972-49979.	1.6	27
43	Calcium signalling mediated through $\alpha_7$ and non $\alpha_7$ nAChR stimulation is differentially regulated in bovine chromaffin cells to induce catecholamine release. <i>British Journal of Pharmacology</i> , 2011, 162, 94-110.	2.7	27
44	Calcineurin-independent inhibition of mitochondrial Ca <sup>2+</sup> uptake by cyclosporin A. <i>British Journal of Pharmacology</i> , 2004, 141, 263-268.	2.7	24
45	Mitochondrial free [Ca <sup>2+</sup> ] levels and the permeability transition. <i>Cell Calcium</i> , 2009, 45, 243-250.	1.1	24
46	An estimate of the number of Ca <sup>2+</sup> -dependent K <sup>+</sup> channels in the human red cell. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1987, 903, 543-546.	1.4	23
47	Secretory Phospholipase A2 Induces Phospholipase C $\beta$ -1 Activation and Ca <sup>2+</sup> Mobilization in the Human Astrocytoma Cell Line 1321N1 by a Mechanism Independent of Its Catalytic Activity. <i>Biochemical and Biophysical Research Communications</i> , 1999, 260, 99-104.	1.0	23
48	Modulation of secretion by the endoplasmic reticulum in mouse chromaffin cells. <i>European Journal of Neuroscience</i> , 2002, 16, 1690-1696.	1.2	23
49	Biphasic and differential modulation of Ca <sup>2+</sup> entry by ATP and UTP in promyelocytic leukaemia HL60 cells. <i>Biochemical Journal</i> , 1995, 305, 879-887.	1.7	21
50	Control of secretion by mitochondria depends on the size of the local [Ca <sup>2+</sup> ] after chromaffin cell stimulation. <i>European Journal of Neuroscience</i> , 2001, 13, 2247-2254.	1.2	21
51	On the role of intravesicular calcium in the motion and exocytosis of secretory organelles. <i>Communicative and Integrative Biology</i> , 2009, 2, 71-73.	0.6	21
52	Effects of electron donors on Ca <sup>2+</sup> -dependent K <sup>+</sup> transport in one-step inside-out vesicles from the human erythrocyte membrane. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1984, 771, 23-27.	1.4	20
53	Stimulation by thimerosal of histamine-induced Ca <sup>2+</sup> -release in intact HeLa cells seen with aequorin targeted to the endoplasmic reticulum. <i>Cell Calcium</i> , 2001, 30, 181-190.	1.1	20
54	Effect of inositol 1,4,5-trisphosphate receptor stimulation on mitochondrial [Ca <sup>2+</sup> ] and secretion in chromaffin cells. <i>Biochemical Journal</i> , 2002, 365, 451-459.	1.7	20

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55	Modulation of Calcium Entry by Mitochondria. <i>Advances in Experimental Medicine and Biology</i> , 2016, 898, 405-421.	0.8	18
56	Inhibition of Sarco-Endoplasmic Reticulum Ca <sup>2+</sup> ATPase Extends the Lifespan in <i>C. elegans</i> Worms. <i>Frontiers in Pharmacology</i> , 2018, 9, 669.	1.6	18
57	Cerebral Oxygen Saturation and Negative Postoperative Behavioral Changes in Pediatric Surgery: A Prospective Observational Study. <i>Journal of Pediatrics</i> , 2019, 208, 207-213.e1.	0.9	18
58	Modeling Alzheimer's Disease in <i>Caenorhabditis elegans</i> . <i>Biomedicines</i> , 2022, 10, 288.	1.4	18
59	Functional Characterization of Three Concomitant MtDNA LHON Mutations Shows No Synergistic Effect on Mitochondrial Activity. <i>PLoS ONE</i> , 2016, 11, e0146816.	1.1	17
60	Effects of Long-Term Feeding of the Polyphenols Resveratrol and Kaempferol in Obese Mice. <i>PLoS ONE</i> , 2014, 9, e112825.	1.1	16
61	Dissociation of the effects of the antitumour ether lipid ET-18-OCH <sub>3</sub> on cytosolic calcium and on apoptosis. <i>British Journal of Pharmacology</i> , 1997, 121, 1364-1368.	2.7	15
62	Mitochondrial Ca <sup>2+</sup> Dynamics in MCU Knockout <i>C. elegans</i> Worms. <i>International Journal of Molecular Sciences</i> , 2020, 21, 8622.	1.8	15
63	All or none cell responses of Ca <sup>2+</sup> -dependent K channels elicited by calcium or lead in human red cells can be explained by heterogeneity of agonist distribution. <i>Journal of Membrane Biology</i> , 1988, 104, 129-138.	1.0	14
64	Agonist-induced Ca <sup>2+</sup> influx in human neutrophils is not mediated by production of inositol polyphosphates but by emptying of the intracellular Ca <sup>2+</sup> stores. <i>Biochemical Society Transactions</i> , 1994, 22, 809-813.	1.6	14
65	Dynamics of mitochondrial [Ca <sup>2+</sup> ] measured with the low-Ca <sup>2+</sup> -affinity dye rhod-5N. <i>Cell Calcium</i> , 2012, 51, 65-71.	1.1	14
66	The role of calmodulin on Ca <sup>2+</sup> -dependent K <sup>+</sup> transport regulation in the human red cell. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1986, 860, 25-34.	1.4	13
67	Chemotactic peptide down-regulation of calcium mobilization induced by platelet-activating factor and by leukotriene B <sub>4</sub> in human neutrophils is uncovered by protein phosphatase inhibitors. <i>Biochemical Journal</i> , 1994, 303, 559-566.	1.7	13
68	Long-term monitoring of Ca <sup>2+</sup> dynamics in <i>C. elegans</i> pharynx: an <i>in vivo</i> energy balance sensor. <i>Oncotarget</i> , 2016, 7, 67732-67747.	0.8	13
69	The dynamics of mitochondrial Ca <sup>2+</sup> fluxes. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2010, 1797, 1727-1735.	0.5	12
70	Pharynx mitochondrial [Ca <sup>2+</sup> ] dynamics in live <i>C. elegans</i> worms during aging. <i>Oncotarget</i> , 2017, 8, 55889-55900.	0.8	11
71	Ca <sup>2+</sup> influx following receptor activation. <i>Trends in Pharmacological Sciences</i> , 1992, 13, 12-13.	4.0	10
72	A confocal study on the visualization of chromaffin cell secretory vesicles with fluorescent targeted probes and acidic dyes. <i>Journal of Structural Biology</i> , 2010, 172, 261-269.	1.3	10

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73	The pathway for refilling intracellular Ca <sup>2+</sup> stores passes through the cytosol in human leukaemia cells. Pflugers Archiv European Journal of Physiology, 1993, 424, 465-469.	1.3	9
74	The Neuroprotector Benzothiazepine CGP37157 Extends Lifespan in C. elegans Worms. Frontiers in Aging Neuroscience, 2018, 10, 440.	1.7	9
75	Regulation of inositol 1,4,5-trisphosphate-induced Ca <sup>2+</sup> release from the endoplasmic reticulum by AMP-activated kinase modulators. Cell Calcium, 2019, 77, 68-76.	1.1	9
76	Modulation of Ca <sup>2+</sup> -dependent K <sup>+</sup> transport by modifications of the NAD <sup>+</sup> /NADH ratio in intact human red cells. Biochimica Et Biophysica Acta - Biomembranes, 1986, 856, 408-411.	1.4	8
77	Subcellular Ca <sup>2+</sup> Dynamics. Physiology, 1999, 14, 161-168.	1.6	8
78	Ca <sup>2+</sup> Dynamics in the Secretory Vesicles of Neurosecretory PC12 and INS1 Cells. Cellular and Molecular Neurobiology, 2010, 30, 1267-1274.	1.7	7
79	Calcium dynamics in the secretory granules of neuroendocrine cells. Cell Calcium, 2012, 51, 331-337.	1.1	7
80	Analysis of the all or nothing behaviour of Ca-dependent K channels in one-step inside-out vesicles from human red cell membranes. Biochimica Et Biophysica Acta - Biomembranes, 1986, 859, 56-60.	1.4	6
81	Inhibition of Ca <sup>2+</sup> -dependent K <sup>+</sup> channels by lead in one-step inside-out vesicles from human red cell membranes. Biochimica Et Biophysica Acta - Biomembranes, 1986, 857, 291-294.	1.4	6
82	Novel antimigraineur dotarizine releases Ca <sup>2+</sup> from caffeine-sensitive Ca <sup>2+</sup> stores of chromaffin cells. British Journal of Pharmacology, 1999, 128, 621-626.	2.7	6
83	[22] Preparation and properties of one-step inside-out vesicles from red cell membranes. Methods in Enzymology, 1989, 173, 368-376.	0.4	5
84	Subcellular Ca <sup>2+</sup> Dynamics Measured with Targeted Aequorin in Chromaffin Cells. Annals of the New York Academy of Sciences, 2002, 971, 634-640.	1.8	5
85	Mechanism of the lifespan extension induced by submaximal SERCA inhibition in C. elegans. Mechanisms of Ageing and Development, 2021, 196, 111474.	2.2	5
86	Inhibition of red cell Ca <sup>2+</sup> -dependent K <sup>+</sup> channels by snake venoms. Biochimica Et Biophysica Acta - Biomembranes, 1989, 980, 134-138.	1.4	4
87	Agonist-evoked Ca <sup>2+</sup> entry in human platelets: a reply. Biochemical Journal, 1992, 285, 343-344.	1.7	4
88	The Mitochondrial Na <sup>+</sup> /Ca <sup>2+</sup> Exchanger Inhibitor CGP37157 Preserves Muscle Structure and Function to Increase Lifespan and Healthspan in Caenorhabditis elegans. Frontiers in Pharmacology, 2021, 12, 695687.	1.6	4
89	Transient inhibition of capacitative calcium entry in human neutrophils by a monoclonal antibody directed against a 19-kDa antigen. Journal of Leukocyte Biology, 1996, 60, 323-327.	1.5	2
90	Ca <sup>2+</sup> -Activated Potassium Channels. , 1989, , 201-231.		1