M K Mathew

List of Publications by Year
in descending order

70 papers	3,024 citations	159585 30 h-index	161849 54 g-index
72 all docs	72 docs citations	72 times ranked	3333 citing authors

#	Article	IF	Citations
1	Role of Arabidopsis RAB5 GEF vps9a in maintaining potassium levels under sodium chloride stress. Plant Direct, 2020, 4, e00273.	1.9	4
2	The Ca²⁺ Channel CNGC19 Regulates Arabidopsis Defense Against Spodoptera Herbivory. Plant Cell, 2019, 31, 1539-1562.	6.6	88
3	Mechanism of aggregation and membrane interactions of mammalian prion protein. Biochimica Et Biophysica Acta - Biomembranes, 2018, 1860, 1927-1935.	2.6	37
4	Fluid flow modulates electrical activity in cardiac hERG potassium channels. Journal of Biological Chemistry, 2018, 293, 4289-4303.	3.4	15
5	Dynamics of Membrane Proteins. Springer Series in Biophysics, 2017, , 219-241.	0.4	2
6	Regulation of VDAC trafficking modulates cell death. Cell Death Discovery, 2016, 2, 16085.	4.7	20
7	Vesicular trafficking and salinity responses in plants. IUBMB Life, 2015, 67, 677-686.	3.4	50
8	Expression and Purification of OsVDAC4. Methods in Enzymology, 2015, 556, 51-75.	1.0	1
9	Salt-Induced Remodeling of Spatially Restricted Clathrin-Independent Endocytic Pathways in Arabidopsis Root. Plant Cell, 2015, 27, 1297-1315.	6.6	66
10	Functional characterization of a transition metal ion transporter, OsZIP6 from rice (Oryza sativa L.). Plant Physiology and Biochemistry, 2015, 97, 165-174.	5.8	74
11	Mitochondrial VDAC and hexokinase together modulate plant programmed cell death. Protoplasma, 2013, 250, 875-884.	2.1	41
12	Inhibition of virus infection by transient expression of short hairpin RNA targeting the methyltransferase domain of Tobacco mosaic virus replicase. Phytoparasitica, 2013, 41, 9-15.	1.2	1
13	Measurements of Cytosolic Ion Concentrations in Live Cells. , 2013, 953, 233-241.		0
14	Rice cultivars with differing salt tolerance contain similar cation channels in their root cells. Journal of Experimental Botany, 2012, 63, 3289-3296.	4.8	45
15	Inhibition of TMV multiplication by siRNA constructs against TOM1 and TOM3 genes of Capsicum annuum. Journal of Virological Methods, 2012, 186, 78-85.	2.1	10
16	Development of the Structural Core and of Conformational Heterogeneity during the Conversion of Oligomers of the Mouse Prion Protein to Worm-like Amyloid Fibrils. Journal of Molecular Biology, 2012, 423, 217-231.	4.2	54
17	Bacterial Expression, Purification and Characterization of a Rice Voltage-Dependent, Anion-Selective Channel Isoform, OsVDAC4. Journal of Membrane Biology, 2011, 244, 67-80.	2.1	18
18	Solution structure of BTK-2, a novel hKv1.1 inhibiting scorpion toxin, from the eastern Indian scorpion Mesobuthus tamulus. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2011, 1814, 459-469.	2.3	11

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19	Repression of the glucose-inducible outer-membrane protein OprB during utilization of aromatic compounds and organic acids in Pseudomonas putida CSV86. Microbiology (United Kingdom), 2011, 157, 1531-1540.	1.8	24
20	Root apoplastic barriers block Na+ transport to shoots in rice (Oryza sativa L.). Journal of Experimental Botany, 2011, 62, 4215-4228.	4.8	187
21	Potassium channel regulator KCNRG regulates surface expression of Shaker-type potassium channels. Biochemical and Biophysical Research Communications, 2010, 391, 1301-1305.	2.1	19
22	The role of root apoplastic transport barriers in salt tolerance of rice (Oryza sativa L.). Planta, 2009, 230, 119-134.	3.2	200
23	Potassium channel opening: a subtle twoâ€step. Journal of Physiology, 2009, 587, 3851-3868.	2.9	9
24	Fast inactivation in potassium channels: An interplay of cytoplasmic domains. Biochemical and Biophysical Research Communications, 2009, 388, 490-495.	2.1	0
25	Haem homeostasis is regulated by the conserved and concerted functions of HRG-1 proteins. Nature, 2008, 453, 1127-1131.	27.8	275
26	A Plant Ca2+ Pump, ACA2, Relieves Salt Hypersensitivity in Yeast. Journal of Biological Chemistry, 2008, 283, 3497-3506.	3.4	57
27	Limiting cytosolic Na+confers salt tolerance to rice cells in culture: a two-photon microscopy study of SBFI-loaded cells. Physiologia Plantarum, 2007, 129, 607-621.	5.2	51
28	Functional assay ofÂSalmonellaÂtyphi OmpC using reconstituted large unilamellar vesicles: aÂgeneral method forÂcharacterization ofÂouter membrane proteins. Biochimie, 2006, 88, 1419-1424.	2.6	13
29	Regulation of the uptake and distribution of Na+in shoots of rice (Oryza sativa) variety Pokkali: role of Ca2+in salt tolerance response. Physiologia Plantarum, 2005, 124, 451-464.	5.2	63
30	N type rapid inactivation in human Kv1.4 channels: functional role of a putative C-terminal helix. Molecular Membrane Biology, 2005, 22, 389-400.	2.0	5
31	Arranging the elements of the potassium channel: the T1 domain occludes the cytoplasmic face of the channel. European Biophysics Journal, 2004, 33, 370-6.	2.2	5
32	The mitochondrial phase of the glucocorticoid-induced apoptotic response in thymocytes comprises sequential activation of adenine nucleotide transporter (ANT)-independent and ANT-dependent events. European Journal of Immunology, 2004, 34, 119-125.	2.9	22
33	Functional Properties of the Drosophila melanogaster Inositol 1,4,5-Trisphosphate Receptor Mutants. Biophysical Journal, 2004, 86, 3634-3646.	0.5	43
34	Inward and outward potassium currents through the same chimeric human Kv channel. European Biophysics Journal, 2003, 32, 113-121.	2.2	5
35	A tale of two tails: cytosolic termini and K+ channel function. Progress in Biophysics and Molecular Biology, 2003, 83, 153-170.	2.9	5
36	VDAC is a conserved element of death pathways in plant and animal systems. Biochimica Et Biophysica Acta - Molecular Cell Research, 2003, 1642, 87-96.	4.1	147

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37	BTK-2, a new inhibitor of the Kv1.1 potassium channel purified from Indian scorpion Buthus tamulus. FEBS Letters, 2003, 539, 7-13.	2.8	22
38	Modulation of voltage sensitivity by N-terminal cytoplasmic residues in human Kv1.2 channels. European Biophysics Journal, 2002, 31, 365-372.	2.2	7
39	A Stress-Responsive Gene from Groundnut, Gdi-15, Is Homologous to Flavonol 3-O-Glucosyltransferase Involved in Anthocyanin Biosynthesis. Biochemical and Biophysical Research Communications, 2001, 284, 574-579.	2.1	30
40	Resting membrane potential as a marker of apoptosis: studies on Xenopus oocytes microinjected with cytochromeâ€‰c. Cell Death and Differentiation, 2001, 8, 63-69.	11.2	35
41	Cytoplasmic residues influence the voltage-dependence of the gating of human K+ channels. NeuroReport, 2000, 11, 2913-2917.	1.2	5
42	Modeling of ion permeation in calcium and sodium channel selectivity filters. , 2000, 38, 384-392.		8
43	Exploring the Architecture of Potassium Channels Using ChimÃ¦ras to Reveal Signal Transduction. Bioscience Reports, 1999, 19, 301-306.	2.4	7
44	Functional reconstitution of bacterially expressed human potassium channels in proteoliposomes: membrane potential measurements with JC-1 to assay ion channel activity. Biochimica Et Biophysica Acta - Biomembranes, 1999, 1416, 92-100.	2.6	18
45	Transplanting the N-terminus from Kv1.4 to Kv1.1 generates an inwardly rectifying K+ channel. NeuroReport, 1999, 10, 237-241.	1.2	10
46	Genotypic Variability in Differential Expression of lea2 and lea3 Genes and Proteins in Response to Salinity Stress in Fingermillet (Eleusine coracanaGaertn) and Rice (Oryza sativaL.) Seedlings. Annals of Botany, 1998, 82, 513-522.	2.9	34
47	Characterization of a 22-residue peptide derived from a designed ion channel. Biochimica Et Biophysica Acta - Biomembranes, 1997, 1328, 177-184.	2.6	3
48	A role for hydrophobic residues in the voltage-dependent gating of Shaker K+ channels.. Proceedings of the National Academy of Sciences of the United States of America, 1991, 88, 2931-2935.	7.1	205
49	Human potassium channel genes: Molecular cloning and functional expression. Molecular and Cellular Neurosciences, 1990, 1, 214-223.	2.2	68
50	Retinal isomer ratio in dark-adapted purple membrane and bacteriorhodopsin monomers. Biochemistry, 1989, 28, 829-834.	2.5	147
51	High-resolution separation and accurate size determination of pulsed-field gel electrophoresis of DNA. 4. Influence of DNA topology. Biochemistry, 1988, 27, 9222-9226.	2.5	57
52	High-resolution separation and accurate size determination in pulsed-field gel electrophoresis of DNA. 2. Effect of pulse time and electric field strength and implications for models of the separation process. Biochemistry, 1988, 27, 9210-9216.	2.5	60
53	High-resolution separation and accurate size determination in pulsed-field gel electrophoresis of DNA. 1. DNA size standards and the effect of agarose and temperature. Biochemistry, 1988, 27, 9204-9210.	2.5	87
54	Bacteriorhodopsin photoreaction: identification of a long-lived intermediate N (P, R350) at high pH and its M-like photoproduct. Biochemistry, 1988, 27, 5855-5863.	2.5	159

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55	Coupling between the bacteriorhodopsin photocycle and the protonmotive force in Halobacterium halobium cell envelope vesicles. III. Time-resolved increase in the transmembrane electric potential and modeling of the associated ion fluxes. Biophysical Journal, 1985, 48, 709-719.	0.5	12
56	Fluorescence polarization as a tool to study lectin-sugar interaction. Journal of Biosciences, 1983, 5, 31-39.	1.1	0
57	Alamethicin and related membrane channel forming polypeptides. Molecular and Cellular Biochemistry, 1983, 50, 47-64.	3.1	77
58	A fluorescent peptide model for the thioredoxin active site. FEBS Letters, 1983, 159, 221-224.	2.8	9
59	A helix dipole model for alamethicin and related transmembrane channels. FEBS Letters, 1983, 157, 1-5.	2.8	65
60	Ionophore-mediated transmembrane movement of divalent cations in small unilamellar liposomes: An evaluation of the chlortetracycline fluorescence technique and correlations with black lipid membrane studies. Journal of Membrane Biology, 1982, 65, 13-17.	2.1	10
61	Membrane channel-forming polypeptides. Aqueous phase aggregation and membrane-modifying activity of synthetic fluorescent alamethicin fragments.. Journal of Biological Chemistry, 1982, 257, 2170-2176.	3.4	30
62	Membrane channel-forming polypeptides. Aqueous phase aggregation and membrane-modifying activity of synthetic fluorescent alamethicin fragments. Journal of Biological Chemistry, 1982, 257, 2170-6.	3.4	25
63	Fluorescent alamethicin fragments A study of membrane activity and aqueous phase aggregation. Biochimica Et Biophysica Acta - Biomembranes, 1981, 649, 336-342.	2.6	7
64	Disulfide luminescence. Emission characteristics of cyclic tetrapeptide disulfides. Biochemical and Biophysical Research Communications, 1981, 103, 498-504.	2.1	2
65	Alamethicin and synthetic peptide fragments as uncouplers of mitochondrial oxidative phosphorylation. Effect of chain length and change. Biochemical and Biophysical Research Communications, 1981, 98, 548-555.	2.1	33
66	Fluorescence-polarization studies on binding of 4-methylumbelliferyl Î²-d-galactopyranoside to Ricinus communis (castor-bean) agglutinin. Biochemical Journal, 1980, 191, 395-400.	3.7	26
67	A reinvestigation of chlortetracycline fluorescence: effect of pH, metal ions, and environment. Journal of Inorganic Biochemistry, 1980, 13, 339-346.	3.5	24
68	Cation translocating effects of alamethicin and its synthetic fragments in lipid membranes. FEBS Letters, 1980, 121, 365-368.	2.8	25
69	Unmasking of tyrosyl fluorescence in serum albumins on bilirubin binding. FEBS Letters, 1980, 115, 91-94.	2.8	8
70	Fluorescent probe and NMR studies of the aggregation of bile salts in aqueous solution. Chemistry and Physics of Lipids, 1979, 25, 345-356.	3.2	32