Rikard Blunck

List of Publications by Year
in descending order

75 papers	2,160 citations	304602 22 h-index	233338 45 g-index
79 all docs	79 docs citations	79 times ranked	2278 citing authors

#	Article	IF	Citations
1	Studying KcsA Channel Clustering Using Single Channel Voltage-Clamp Fluorescence Imaging*. Frontiers in Physiology, 2022, 13, .	1.3	2
2	Musculoskeletal Features without Ataxia Associated with a Novel de novo Mutation in KCNA1 Impairing the Voltage Sensitivity of Kv1.1 Channel. Biomedicines, 2021, 9, 75.	1.4	5
3	Functional Characterization of Two Novel Mutations in SCN5A Associated with Brugada Syndrome Identified in Italian Patients. International Journal of Molecular Sciences, 2021, 22, 6513.	1.8	4
4	A Novel KCNA2 Variant in a Patient with Non-Progressive Congenital Ataxia and Epilepsy: Functional Characterization and Sensitivity to 4-Aminopyridine. International Journal of Molecular Sciences, 2021, 22, 9913.	1.8	9
5	Determining stoichiometry of ion channel complexes using single subunit counting. Methods in Enzymology, 2021, 653, 377-404.	0.4	2
6	Choosing the Correct Stoichiometry from Single Subunit Counting Data. Biophysical Journal, 2020, 118, 262a.	0.2	0
7	Position of Inactivation Particle of Shaker Kv Channels in Resting State. Biophysical Journal, 2020, 118, 169a.	0.2	0
8	Reply to Pisupati et al.: Evaluating single subunit counting data to find the correct stoichiometry. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 29290-29291.	3.3	1
9	A Variant in the Nicotinic Acetylcholine Receptor Alpha 3 Subunit Gene Is Associated With Hypertension Risks in Hypogonadic Patients. Frontiers in Genetics, 2020, 11, 539862.	1.1	2
10	A Common Kinetic Property of Mutations Linked to Episodic Ataxia Type 1 Studied in the Shaker Kv Channel. International Journal of Molecular Sciences, 2020, 21, 7602.	1.8	5
11	TACAN Is an Ion Channel Involved in Sensing Mechanical Pain. Cell, 2020, 180, 956-967.e17.	13.5	120
12	Determining the correct stoichiometry of Kv2.1/Kv6.4 heterotetramers, functional in multiple stoichiometrical configurations. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 9365-9376.	3.3	16
13	Disease-linked mutations alter the stoichiometries of HCN-KCNE2 complexes. Scientific Reports, 2019, 9, 9113.	1.6	11
14	Single Channel Studies of the Cation Permeation Pathway of the Shaker Kv Isolated Voltage-Sensing Domain (iVSD). Biophysical Journal, 2019, 116, 543a.	0.2	0
15	Mode Shift of Shaker Isolated-Voltage Sensing Domain. Biophysical Journal, 2018, 114, 546a.	0.2	0
16	Molecular Interactions that Contribute to the Regulation of HCN Channels by KCNE2. Biophysical Journal, 2018, 114, 120a.	0.2	0
17	S4â€“S5 linker movement during activation and inactivation in voltage-gated K ⁺ channels. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E6751-E6759.	3.3	48
18	Stoichiometries of HCN-KCNE2 Channel. Biophysical Journal, 2017, 112, 183a.	0.2	0

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19	Molecular Interactions between Kv4.3 and DPP6 - The Biochemical Anatomy of Idiopathic Ventricular Fibrillation. Biophysical Journal, 2017, 112, 183a.	0.2	0
20	The Isolated Voltage Sensing Domain of the Shaker Potassium Channel forms a Cation Channel. Biophysical Journal, 2017, 112, 249a.	0.2	0
21	Probing the Movement of the Ball and Chain during N-type Inactivation in Kv Channels. Biophysical Journal, 2017, 112, 39a.	0.2	0
22	Voltage-clamp Fluorometry in Xenopus Oocytes Using Fluorescent Unnatural Amino Acids. Journal of Visualized Experiments, 2017, , .	0.2	7
23	Full-length cellular Î²-secretase has a trimeric subunit stoichiometry, and its sulfur-rich transmembrane interaction site modulates cytosolic copper compartmentalization. Journal of Biological Chemistry, 2017, 292, 13258-13270.	1.6	21
24	The Human Sodium-Glucose Cotransporter (hSGLT1) Is a Disulfide-Bridged Homodimer with a Re-Entrant C-Terminal Loop. PLoS ONE, 2016, 11, e0154589.	1.1	5
25	Probing the S4-S5 Linker Movement During Activation in KV Channels. Biophysical Journal, 2016, 110, 104a.	0.2	0
26	Structure of anthrax lethal toxin prepore complex suggests a pathway for efficient cell entry. Journal of General Physiology, 2016, 148, 313-324.	0.9	16
27	A Step-by-Step Guide to Single-Subunit Counting of Membrane-Bound Proteins in Mammalian Cells. Neuromethods, 2016, , 15-30.	0.2	3
28	The isolated voltage sensing domain of the Shaker potassium channel forms a voltage-gated cation channel. ELife, 2016, 5, .	2.8	41
29	Investigation of Ion Channel Structure Using Fluorescence Spectroscopy. , 2015, , 113-133.		2
30	Studying Clustering of KcsA Channels using Single-Channel Voltage-Clamp Fluorescence Imaging. Biophysical Journal, 2015, 108, 440a.	0.2	2
31	Non-Canonical Start Codons Reinitiate Translation in N-Terminal Truncated Kv Channels. Biophysical Journal, 2015, 108, 118a.	0.2	0
32	A Point Mutation Causing Episodic Ataxia Reveals Functional Link between Voltage Sensor and Selectivity Filter in Shaker Kv Channels. Biophysical Journal, 2015, 108, 24a.	0.2	0
33	Reinitiation at non-canonical start codons leads to leak expression when incorporating unnatural amino acids. Scientific Reports, 2015, 5, 11866.	1.6	28
34	Role of the Voltage Sensing Domain S1-S4 in TRPV1 Channels. Biophysical Journal, 2015, 108, 427a.	0.2	0
35	A Disease Mutation Causing Episodic Ataxia Type I in the S1 Links Directly to the Voltage Sensor and the Selectivity Filter in Kv Channels. Journal of Neuroscience, 2015, 35, 12198-12206.	1.7	8
36	Occupancy of a Single Binding Site is Sufficient for AMPAR Activation. Biophysical Journal, 2014, 106, 30a.	0.2	0

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37	Do Lipids Show State-dependent Affinity to the Voltage-gated Potassium Channel KvAP?. Journal of Biological Chemistry, 2014, 289, 16452-16461.	1.6	11
38	Cytosolic Activation Dynamics in the KV Channel Probed by a Fluorescent Unnatural Amino Acid. Biophysical Journal, 2014, 106, 536a-537a.	0.2	0
39	Lipid Affinity to the Voltage-Gated Potassium Channel KvAP. Biophysical Journal, 2014, 106, 15a-16a.	0.2	0
40	Influence of Lipid Bilayer Thickness on Ion Channels Using Single-Channel Voltage-Clamp Fluorescence Imaging. Biophysical Journal, 2014, 106, 738a-739a.	0.2	0
41	A Molecular Mechanics Model of a Closed Voltage-Gated Potassium Channel Generated from S4-S5 Linker LRET Measurements. Biophysical Journal, 2013, 104, 124a.	0.2	0
42	FRET Quenching by a Hybrid Voltage Sensor (Hvos) Reveals that the Na/Glucose Cotransporter (SGLT1) Is a Disulfide-Bridged Homodimer with Re-Entrant 12-13 Loop. Biophysical Journal, 2013, 104, 223a.	0.2	0
43	Dynamics of internal pore opening in K _V channels probed by a fluorescent unnatural amino acid. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 8272-8277.	3.3	95
44	A Limited 4 Ã… Radial Displacement of the S4-S5 Linker Is Sufficient for Internal Gate Closing in Kv Channels. Journal of Biological Chemistry, 2012, 287, 40091-40098.	1.6	28
45	Automating Single Subunit Counting of Membrane Proteins in Mammalian Cells. Journal of Biological Chemistry, 2012, 287, 35912-35921.	1.6	85
46	Gating and Stoichiometry of Heteromeric Kainate Receptors. Biophysical Journal, 2012, 102, 613a.	0.2	0
47	Single Molecule Fluorescence Study of the B. Thuringiensis Toxin Cry1Aa Reveals Tetramerization. Biophysical Journal, 2012, 102, 214a.	0.2	0
48	Movement of the S4-S5 Linker of KvAP during Gating. Biophysical Journal, 2012, 102, 13a.	0.2	2
49	An Automated Method to Study Oligomerization of Single Membrane-Bound Proteins using Fluorescence Imaging. Biophysical Journal, 2012, 102, 114a-115a.	0.2	0
50	Mechanism of Electromechanical Coupling in Voltage-Gated Potassium Channels. Frontiers in Pharmacology, 2012, 3, 166.	1.6	78
51	Mode Shift of the Voltage Sensors in Shaker K+ Channels is Caused by Energetic Coupling to the Pore Domain. Biophysical Journal, 2011, 100, 367a.	0.2	0
52	Double Mutant Cycle Analysis Identified a Critical Leucine Residue in the IIS4S5 Linker for the Activation of the CaV2.3 Calcium Channel. Journal of Biological Chemistry, 2011, 286, 27197-27205.	1.6	31
53	Single Molecule Fluorescence Study of the Bacillus thuringiensis Toxin Cry1Aa Reveals Tetramerization. Journal of Biological Chemistry, 2011, 286, 42274-42282.	1.6	39
54	Mode shift of the voltage sensors in Shaker K+ channels is caused by energetic coupling to the pore domain. Journal of General Physiology, 2011, 137, 455-472.	0.9	67

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55	Rapid topology probing using fluorescence spectroscopy in planar lipid bilayer: the pore-forming mechanism of the toxin Cry1Aa of <i>Bacillus thuringiensis</i>. Journal of General Physiology, 2010, 136, 497-513.	0.9	23
56	An Intersubunit Interaction between S4-S5 Linker and S6 Is Responsible for the Slow Off-gating Component in Shaker K+ Channels. Journal of Biological Chemistry, 2010, 285, 14005-14019.	1.6	72
57	Molecular Determinants of the Slow Off-Gating Component in Shaker K+ Channels. Biophysical Journal, 2010, 98, 522a.	0.2	0
58	Towards Simultaneous Single Channel Current and Fluorescence Recordings in Planar Lipid Bilayer. Biophysical Journal, 2010, 98, 536a-537a.	0.2	0
59	Determining The Coupling Between Subunits In Kcsa Using Single Channel Fluorescence Spectroscopy. Biophysical Journal, 2009, 96, 24a.	0.2	0
60	Investigating the Electromechanical Coupling in voltage-gated K+ channels. Biophysical Journal, 2009, 96, 369a.	0.2	1
61	Rapid Topology Determination of Membrane Proteins: Pore-Forming Mechanism of Bt toxin Cry1Aa. Biophysical Journal, 2009, 96, 535a.	0.2	1
62	Fluorescence detection of the movement of single KcsA subunits reveals cooperativity. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 20263-20268.	3.3	56
63	Distance measurements reveal a common topology of prokaryotic voltage-gated ion channels in the lipid bilayer. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 15865-15870.	3.3	39
64	Cell Activation by Ligands of the Toll-Like Receptor and Interleukin-1 Receptor Family Depends on the Function of the Large-Conductance Potassium Channel MaxiK in Human Macrophages. Infection and Immunity, 2006, 74, 4354-4356.	1.0	31
65	Detection of the Opening of the Bundle Crossing in KcsA with Fluorescence Lifetime Spectroscopy Reveals the Existence of Two Gates for Ion Conduction. Journal of General Physiology, 2006, 128, 569-581.	0.9	97
66	A hybrid approach to measuring electrical activity in genetically specified neurons. Nature Neuroscience, 2005, 8, 1619-1626.	7.1	169
67	Gating charge displacement in voltage-gated ion channels involves limited transmembrane movement. Nature, 2005, 436, 852-856.	13.7	263
68	Nano to Micro â€” Fluorescence Measurements of Electric Fields in Molecules and Genetically Specified Neurons. Journal of Membrane Biology, 2005, 208, 91-102.	1.0	19
69	Silicon chip-based patch-clamp electrodes integrated with PDMS microfluidics. Biosensors and Bioelectronics, 2004, 20, 509-517.	5.3	163
70	Detecting Rearrangements of Shaker and NaChBac in Real-Time with Fluorescence Spectroscopy in Patch-Clamped Mammalian Cells. Biophysical Journal, 2004, 86, 3966-3980.	0.2	57
71	Black Lipid Membranes:Â Visualizing the Structure, Dynamics, and Substrate Dependence of Membranes. Journal of Physical Chemistry B, 2004, 108, 16040-16049.	1.2	72
72	Bilayer Reconstitution of Voltage-Dependent Ion Channels using a Microfabricated Silicon Chip. Biophysical Journal, 2001, 81, 2389-2394.	0.2	128

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73	New Insights Into Endotoxin-Induced Activation of Macrophages: Involvement of a K+ Channel in Transmembrane Signaling. Journal of Immunology, 2001, 166, 1009-1015.	0.4	129
74	How Powerful is the Dwell-Time Analysis of Multichannel Records?. Journal of Membrane Biology, 1998, 165, 19-35.	1.0	19
75	Gating and permeation models of plant channels. Journal of Experimental Botany, 1997, 48, 365-382.	2.4	20