

Georg A Nagel

List of Publications by Year in descending order

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68
papers

14,283
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101384

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times ranked

10958
citing authors

#	ARTICLE	IF	CITATIONS
1	Optogenetic tools for manipulation of cyclic nucleotides functionally coupled to cyclic nucleotide-gated channels. <i>British Journal of Pharmacology</i> , 2022, 179, 2519-2537.	2.7	6
2	Characterization and Modification of Light-Sensitive Phosphodiesterases from Choanoflagellates. <i>Biomolecules</i> , 2022, 12, 88.	1.8	4
3	PMRT1, a <i>Plasmodium</i> -Specific Parasite Plasma Membrane Transporter, Is Essential for Asexual and Sexual Blood Stage Development. <i>MBio</i> , 2022, 13, e0062322.	1.8	7
4	Visual function restoration with a highly sensitive and fast Channelrhodopsin in blind mice. <i>Signal Transduction and Targeted Therapy</i> , 2022, 7, 104.	7.1	10
5	Optogenetic control of plant growth by a microbial rhodopsin. <i>Nature Plants</i> , 2021, 7, 144-151.	4.7	35
6	An engineered membrane-bound guanylyl cyclase with light-switchable activity. <i>BMC Biology</i> , 2021, 19, 54.	1.7	8
7	Extending the Anion Channelrhodopsin-Based Toolbox for Plant Optogenetics. <i>Membranes</i> , 2021, 11, 287.	1.4	9
8	mem-iLID, a fast and economic protein purification method. <i>Bioscience Reports</i> , 2021, 41, .	1.1	3
9	Optogenetic control of the guard cell membrane potential and stomatal movement by the light-gated anion channel <i>Gt</i> ACR1. <i>Science Advances</i> , 2021, 7, .	4.7	28
10	Advances and prospects of rhodopsin-based optogenetics in plant research. <i>Plant Physiology</i> , 2021, 187, 572-589.	2.3	6
11	Hypothalamic dopamine neurons motivate mating through persistent cAMP signalling. <i>Nature</i> , 2021, 597, 245-249.	13.7	63
12	PACmn for improved optogenetic control of intracellular cAMP. <i>BMC Biology</i> , 2021, 19, 227.	1.7	13
13	Modified Rhodopsins From <i>Aureobasidium pullulans</i> Excel With Very High Proton-Transport Rates. <i>Frontiers in Molecular Biosciences</i> , 2021, 8, 750528.	1.6	8
14	Channelrhodopsin-mediated optogenetics highlights a central role of depolarization-dependent plant proton pumps. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 20920-20925.	3.3	46
15	Structural basis of TRPC4 regulation by calmodulin and pharmacological agents. <i>ELife</i> , 2020, 9, .	2.8	38
16	Action potentials in <i>Xenopus</i> oocytes triggered by blue light. <i>Journal of General Physiology</i> , 2020, 152, .	0.9	2
17	Mutated Channelrhodopsins with Increased Sodium and Calcium Permeability. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 664.	1.3	25
18	Optimized photo-stimulation of halorhodopsin for long-term neuronal inhibition. <i>BMC Biology</i> , 2019, 17, 95.	1.7	25

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19	A novel rhodopsin phosphodiesterase from <i>Salpingoeca rosetta</i> shows light-enhanced substrate affinity. <i>Biochemical Journal</i> , 2018, 475, 1121-1128.	1.7	28
20	Two-component cyclase opsins of green algae are ATP-dependent and light-inhibited guanylyl cyclases. <i>BMC Biology</i> , 2018, 16, 144.	1.7	35
21	Synthetic Light-Activated Ion Channels for Optogenetic Activation and Inhibition. <i>Frontiers in Neuroscience</i> , 2018, 12, 643.	1.4	42
22	Rhodopsin-cyclases for photocontrol of cGMP/cAMP and 2.3Å... structure of the adenylyl cyclase domain. <i>Nature Communications</i> , 2018, 9, 2046.	5.8	55
23	Rhodopsin optogenetic toolbox v2.0 for light-sensitive excitation and inhibition in <i>Caenorhabditis elegans</i> . <i>PLoS ONE</i> , 2018, 13, e0191802.	1.1	44
24	Mechano-dependent signaling by Latrophilin/CIRL quenches cAMP in proprioceptive neurons. <i>ELife</i> , 2017, 6, .	2.8	138
25	Optogenetic manipulation of cGMP in cells and animals by the tightly light-regulated guanylyl-cyclase opsin CyclOp. <i>Nature Communications</i> , 2015, 6, 8046.	5.8	95
26	Optogenetics: 10 years after Chr2 in neurons—views from the community. <i>Nature Neuroscience</i> , 2015, 18, 1202-1212.	7.1	122
27	Channelrhodopsin-2â€”XXL, a powerful optogenetic tool for low-light applications. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 13972-13977.	3.3	182
28	A LOV-domain-mediated blue-light-activated adenylyl cyclase from the cyanobacterium <i>Microcoleus chthonoplastes</i> PCC 7420. <i>Biochemical Journal</i> , 2013, 455, 359-365.	1.7	61
29	Degradation of channelopsin-2 in the absence of retinal and degradation resistance in certain mutants. <i>Biological Chemistry</i> , 2013, 394, 271-280.	1.2	38
30	From channelrhodopsins to optogenetics. <i>EMBO Molecular Medicine</i> , 2013, 5, 173-176.	3.3	84
31	Light Modulation of Cellular cAMP by a Small Bacterial Photoactivated Adenylyl Cyclase, bPAC, of the Soil Bacterium <i>Beggiatoa</i> . <i>Journal of Biological Chemistry</i> , 2011, 286, 1181-1188.	1.6	337
32	Optogenetic Long-Term Manipulation of Behavior and Animal Development. <i>PLoS ONE</i> , 2011, 6, e18766.	1.1	55
33	PAC±- an optogenetic tool for in vivo manipulation of cellular cAMP levels, neurotransmitter release, and behavior in <i>Caenorhabditis elegans</i> . <i>Journal of Neurochemistry</i> , 2011, 116, 616-625.	2.1	82
34	Spatially asymmetric reorganization of inhibition establishes a motion-sensitive circuit. <i>Nature</i> , 2011, 469, 407-410.	13.7	165
35	Microbial rhodopsins in the spotlight. <i>Current Opinion in Neurobiology</i> , 2010, 20, 610-616.	2.0	41
36	Structural Guidance of the Photocycle of Channelrhodopsin-2 by an Interhelical Hydrogen Bond. <i>Biochemistry</i> , 2010, 49, 267-278.	1.2	203

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37	Mechanistic insights in light-induced cAMP production by photoactivated adenylyl cyclase alpha (PAC1±). <i>Biological Chemistry</i> , 2009, 390, 1105-11.	1.2	14
38	Conformational Changes of Channelrhodopsin-2. <i>Journal of the American Chemical Society</i> , 2009, 131, 7313-7319.	6.6	107
39	Characterization and Application of Natural Light-Sensitive Proteins. , 2009, , 47-56.		1
40	Spectral Characteristics of the Photocycle of Channelrhodopsin-2 and Its Implication for Channel Function. <i>Journal of Molecular Biology</i> , 2008, 375, 686-694.	2.0	235
41	Negative charged threonine 95 of c-Jun is essential for c-Jun N-terminal kinase-dependent phosphorylation of threonine 91/93 and stress-induced c-Jun biological activity. <i>International Journal of Biochemistry and Cell Biology</i> , 2008, 40, 307-316.	1.2	16
42	Increases in Intracellular Calcium Triggered by Channelrhodopsin-2 Potentiate the Response of Metabotropic Glutamate Receptor mGluR7. <i>Journal of Biological Chemistry</i> , 2008, 283, 24300-24307.	1.6	22
43	Fast manipulation of cellular cAMP level by light in vivo. <i>Nature Methods</i> , 2007, 4, 39-42.	9.0	237
44	Multimodal fast optical interrogation of neural circuitry. <i>Nature</i> , 2007, 446, 633-639.	13.7	1,602
45	Light-Induced Activation of Distinct Modulatory Neurons Triggers Appetitive or Aversive Learning in <i>Drosophila Larvae</i> . <i>Current Biology</i> , 2006, 16, 1741-1747.	1.8	557
46	Millisecond-timescale, genetically targeted optical control of neural activity. <i>Nature Neuroscience</i> , 2005, 8, 1263-1268.	7.1	4,110
47	Light Activation of Channelrhodopsin-2 in Excitable Cells of <i>Caenorhabditis elegans</i> Triggers Rapid Behavioral Responses. <i>Current Biology</i> , 2005, 15, 2279-2284.	1.8	869
48	Protein kinase-independent activation of CFTR by phosphatidylinositol phosphates. <i>EMBO Reports</i> , 2004, 5, 85-90.	2.0	26
49	CFTR, investigated with the two-electrode voltage-clamp technique: the importance of knowing the series resistance. <i>Journal of Cystic Fibrosis</i> , 2004, 3, 109-111.	0.3	8
50	“Vision” in Single-Celled Algae. <i>Physiology</i> , 2004, 19, 133-137.	1.6	76
51	Channelrhodopsin-2, a directly light-gated cation-selective membrane channel. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 13940-13945.	3.3	2,348
52	Probing the Sensory Rhodopsin II Binding Domain of its Cognate Transducer by Calorimetry and Electrophysiology. <i>Journal of Molecular Biology</i> , 2003, 330, 1203-1213.	2.0	57
53	Apparent affinity of CFTR for ATP is increased by continuous kinase activity. <i>FEBS Letters</i> , 2003, 535, 141-146.	1.3	20
54	Different Affinities of Inhibitors to the Outwardly and Inwardly Directed Substrate Binding Site of Organic Cation Transporter 2. <i>Molecular Pharmacology</i> , 2003, 64, 1037-1047.	1.0	64

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55	Quantitative Analysis of ATP-Dependent Gating of CFTR. , 2002, 70, 67-98.		2
56	Channelrhodopsin-1: A Light-Gated Proton Channel in Green Algae. <i>Science</i> , 2002, 296, 2395-2398.	6.0	1,013
57	Non-specific activation of the epithelial sodium channel by the CFTR chloride channel. <i>EMBO Reports</i> , 2001, 2, 249-254.	2.0	59
58	The Voltage-Dependent Proton Pumping in Bacteriorhodopsin Is Characterized by Optoelectric Behavior. <i>Biophysical Journal</i> , 2001, 81, 2059-2068.	0.2	56
59	Interaction of cations, anions, and weak base quinine with rat renal cation transporter rOCT2 compared with rOCT1. <i>American Journal of Physiology - Renal Physiology</i> , 2001, 281, F454-F468.	1.3	103
60	Mechanism of Electrogenic Cation Transport by the Cloned Organic Cation Transporter 2 from Rat. <i>Journal of Biological Chemistry</i> , 2000, 275, 29413-29420.	1.6	80
61	Dual Effects of Adp and Adenylylimidodiphosphate on Cftr Channel Kinetics Show Binding to Two Different Nucleotide Binding Sites. <i>Journal of General Physiology</i> , 1999, 114, 55-70.	0.9	54
62	Differential function of the two nucleotide binding domains on cystic fibrosis transmembrane conductance regulator. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1999, 1461, 263-274.	1.4	29
63	A Reevaluation of Substrate Specificity of the Rat Cation Transporter rOCT1. <i>Journal of Biological Chemistry</i> , 1997, 272, 31953-31956.	1.6	79
64	Na ⁺ ,K ⁺ -ATPase Pump Currents Activated by an ATP Concentration Jump Comparison of Studies with Purified Membrane fragments and Giant excised Patches. <i>Annals of the New York Academy of Sciences</i> , 1997, 834, 270-279.	1.8	0
65	Transient Currents of Na ⁺ /K ⁺ -ATPase in Giant Patches from Guinea Pig Cardiomyocytes Induced by ATP Concentration Jumps or Voltage Pulses. <i>Annals of the New York Academy of Sciences</i> , 1997, 834, 435-438.	1.8	1
66	Functional expression of bacteriorhodopsin in oocytes allows direct measurement of voltage dependence of light induced H ⁺ pumping. <i>FEBS Letters</i> , 1995, 377, 263-266.	1.3	82
67	The protein kinase A-regulated cardiac Cl ⁻ channel resembles the cystic fibrosis transmembrane conductance regulator. <i>Nature</i> , 1992, 360, 81-84.	13.7	170
68	Cardiac Na ⁺ -Ca ²⁺ -Exchange System in Giant Membrane Patches. <i>Annals of the New York Academy of Sciences</i> , 1991, 639, 126-139.	1.8	42