

# Ehud Y Isacoff

## List of Publications by Citations

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165  
papers

16,495  
citations

68  
h-index

127  
g-index

180  
ext. papers

18,607  
ext. citations

12.9  
avg, IF

6.69  
L-index

#	Paper	IF	Citations
165	A selective turn-on fluorescent sensor for imaging copper in living cells. <i>Journal of the American Chemical Society</i> , <b>2006</b> , 128, 10-1	16.4	686
164	Light-activated ion channels for remote control of neuronal firing. <i>Nature Neuroscience</i> , <b>2004</b> , 7, 1381-6	25.5	578
163	A selective, cell-permeable optical probe for hydrogen peroxide in living cells. <i>Journal of the American Chemical Society</i> , <b>2004</b> , 126, 15392-3	16.4	532
162	Subunit counting in membrane-bound proteins. <i>Nature Methods</i> , <b>2007</b> , 4, 319-21	21.6	519
161	Allosteric control of an ionotropic glutamate receptor with an optical switch. <i>Nature Chemical Biology</i> , <b>2006</b> , 2, 47-52	11.7	497
160	Boronate-based fluorescent probes for imaging cellular hydrogen peroxide. <i>Journal of the American Chemical Society</i> , <b>2005</b> , 127, 16652-9	16.4	484
159	Neurexin mediates the assembly of presynaptic terminals. <i>Nature Neuroscience</i> , <b>2003</b> , 6, 708-16	25.5	482
158	Transmembrane movement of the shaker K <sup>+</sup> channel S4. <i>Neuron</i> , <b>1996</b> , 16, 387-97	13.9	462
157	Evidence for the formation of heteromultimeric potassium channels in <i>Xenopus</i> oocytes. <i>Nature</i> , <b>1990</b> , 345, 530-4	50.4	427
156	Functional architecture of olfactory ionotropic glutamate receptors. <i>Neuron</i> , <b>2011</b> , 69, 44-60	13.9	384
155	A genetically encoded optical probe of membrane voltage. <i>Neuron</i> , <b>1997</b> , 19, 735-41	13.9	361
154	Molecular imaging of hydrogen peroxide produced for cell signaling. <i>Nature Chemical Biology</i> , <b>2007</b> , 3, 263-7	11.7	360
153	Optogenetic dissection of a behavioural module in the vertebrate spinal cord. <i>Nature</i> , <b>2009</b> , 461, 407-10	50.4	324
152	Putative receptor for the cytoplasmic inactivation gate in the Shaker K <sup>+</sup> channel. <i>Nature</i> , <b>1991</b> , 353, 86-90	50.4	313
151	Scanless two-photon excitation of channelrhodopsin-2. <i>Nature Methods</i> , <b>2010</b> , 7, 848-54	21.6	304
150	Optical quantal analysis of synaptic transmission in wild-type and rab3-mutant <i>Drosophila</i> motor axons. <i>Nature Neuroscience</i> , <b>2011</b> , 14, 519-26	25.5	296
149	Analysis of a RanGTP-regulated gradient in mitotic somatic cells. <i>Nature</i> , <b>2006</b> , 440, 697-701	50.4	290

148	Remote control of neuronal activity with a light-gated glutamate receptor. <i>Neuron</i> , <b>2007</b> , 54, 535-45	13.9	281
147	Optical switches for remote and noninvasive control of cell signaling. <i>Science</i> , <b>2008</b> , 322, 395-9	33.3	259
146	How does voltage open an ion channel?. <i>Annual Review of Cell and Developmental Biology</i> , <b>2006</b> , 22, 23-52.6	22.6	245
145	Closing in on the resting state of the Shaker K(+) channel. <i>Neuron</i> , <b>2007</b> , 56, 124-40	13.9	243
144	Voltage-sensing arginines in a potassium channel permeate and occlude cation-selective pores. <i>Neuron</i> , <b>2005</b> , 45, 379-88	13.9	224
143	Functional identification of a goldfish odorant receptor. <i>Neuron</i> , <b>1999</b> , 23, 487-98	13.9	212
142	The voltage-gated proton channel Hv1 has two pores, each controlled by one voltage sensor. <i>Neuron</i> , <b>2008</b> , 58, 546-56	13.9	192
141	Watching a synapse grow: noninvasive confocal imaging of synaptic growth in <i>Drosophila</i> . <i>Neuron</i> , <b>1999</b> , 22, 719-29	13.9	190
140	Filtering of visual information in the tectum by an identified neural circuit. <i>Science</i> , <b>2010</b> , 330, 669-73	33.3	186
139	Synaptic clustering of Fascilin II and Shaker: essential targeting sequences and role of Dlg. <i>Neuron</i> , <b>1997</b> , 19, 1007-16	13.9	183
138	In vivo performance of genetically encoded indicators of neural activity in flies. <i>Journal of Neuroscience</i> , <b>2005</b> , 25, 4766-78	6.6	182
137	Optical lock-in detection imaging microscopy for contrast-enhanced imaging in living cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2008</b> , 105, 17789-94	11.5	175
136	Optical control of metabotropic glutamate receptors. <i>Nature Neuroscience</i> , <b>2013</b> , 16, 507-16	25.5	165
135	A red-shifted, fast-relaxing azobenzene photoswitch for visible light control of an ionotropic glutamate receptor. <i>Journal of the American Chemical Society</i> , <b>2013</b> , 135, 17683-6	16.4	160
134	Mechanisms of photoswitch conjugation and light activation of an ionotropic glutamate receptor. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2007</b> , 104, 10865-70	11.5	152
133	Stoichiometry of the KCNQ1 - KCNE1 ion channel complex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2010</b> , 107, 18862-7	11.5	143
132	Structural and molecular basis of the assembly of the TRPP2/PKD1 complex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2009</b> , 106, 11558-63	11.5	141
131	LiGluR restores visual responses in rodent models of inherited blindness. <i>Molecular Therapy</i> , <b>2011</b> , 19, 1212-9	11.7	140

130	Reversibly caged glutamate: a photochromic agonist of ionotropic glutamate receptors. <i>Journal of the American Chemical Society</i> , <b>2007</b> , 129, 260-1	16.4	135
129	Emergence of patterned activity in the developing zebrafish spinal cord. <i>Current Biology</i> , <b>2012</b> , 22, 93-102	23	123
128	Rules of engagement for NMDA receptor subunits. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2008</b> , 105, 14163-8	11.5	119
127	The twisted ion-permeation pathway of a resting voltage-sensing domain. <i>Nature</i> , <b>2007</b> , 445, 546-9	50.4	119
126	Subunit organization and functional transitions in Ci-VSP. <i>Nature Structural and Molecular Biology</i> , <b>2008</b> , 15, 106-8	17.6	114
125	A light-gated, potassium-selective glutamate receptor for the optical inhibition of neuronal firing. <i>Nature Neuroscience</i> , <b>2010</b> , 13, 1027-32	25.5	112
124	The orientation and molecular movement of a k(+) channel voltage-sensing domain. <i>Neuron</i> , <b>2003</b> , 40, 515-25	13.9	110
123	Conformational dynamics of a class C G-protein-coupled receptor. <i>Nature</i> , <b>2015</b> , 524, 497-501	50.4	109
122	Molecular models of voltage sensing. <i>Journal of General Physiology</i> , <b>2002</b> , 120, 455-63	3.4	108
121	The cooperative voltage sensor motion that gates a potassium channel. <i>Journal of General Physiology</i> , <b>2005</b> , 125, 57-69	3.4	106
120	The opening of the two pores of the Hv1 voltage-gated proton channel is tuned by cooperativity. <i>Nature Structural and Molecular Biology</i> , <b>2010</b> , 17, 44-50	17.6	104
119	Optical control of neuronal activity. <i>Annual Review of Biophysics</i> , <b>2010</b> , 39, 329-48	21.1	98
118	Structural rearrangements in single ion channels detected optically in living cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2002</b> , 99, 12759-64	11.5	97
117	A fluorescent probe designed for studying protein conformational change. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2005</b> , 102, 965-70	11.5	95
116	Tuning FlaSh: redesign of the dynamics, voltage range, and color of the genetically encoded optical sensor of membrane potential. <i>Biophysical Journal</i> , <b>2002</b> , 83, 3607-18	2.9	95
115	Molecular coupling of S4 to a K(+) channel's slow inactivation gate. <i>Journal of General Physiology</i> , <b>2000</b> , 116, 623-36	3.4	95
114	Mechanism of Assembly and Cooperativity of Homomeric and Heteromeric Metabotropic Glutamate Receptors. <i>Neuron</i> , <b>2016</b> , 92, 143-159	13.9	93
113	Evoked and spontaneous transmission favored by distinct sets of synapses. <i>Current Biology</i> , <b>2014</b> , 24, 484-93	6.3	92

112	Molecular basis for multimerization in the activation of the epidermal growth factor receptor. <i>ELife</i> , <b>2016</b> , 5,	8.9	91
111	Reconstructing voltage sensor-pore interaction from a fluorescence scan of a voltage-gated K <sup>+</sup> channel. <i>Neuron</i> , <b>2000</b> , 27, 585-95	13.9	89
110	Heterogeneity in synaptic transmission along a Drosophila larval motor axon. <i>Nature Neuroscience</i> , <b>2005</b> , 8, 1188-96	25.5	84
109	Independence and cooperativity in rearrangements of a potassium channel voltage sensor revealed by single subunit fluorescence. <i>Journal of General Physiology</i> , <b>2000</b> , 115, 257-68	3.4	84
108	Optogenetic Vision Restoration Using Rhodopsin for Enhanced Sensitivity. <i>Molecular Therapy</i> , <b>2015</b> , 23, 1562-71	11.7	83
107	APP homodimers transduce an amyloid- $\beta$ -mediated increase in release probability at excitatory synapses. <i>Cell Reports</i> , <b>2014</b> , 7, 1560-1576	10.6	82
106	Optical control of endogenous proteins with a photoswitchable conditional subunit reveals a role for TREK1 in GABA(B) signaling. <i>Neuron</i> , <b>2012</b> , 74, 1005-14	13.9	81
105	Colloid-guided assembly of oriented 3D neuronal networks. <i>Nature Methods</i> , <b>2008</b> , 5, 735-40	21.6	79
104	Orthogonal Optical Control of a G Protein-Coupled Receptor with a SNAP-Tethered Photochromic Ligand. <i>ACS Central Science</i> , <b>2015</b> , 1, 383-93	16.8	78
103	Restoration of visual function by expression of a light-gated mammalian ion channel in retinal ganglion cells or ON-bipolar cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2014</b> , 111, E5574-83	11.5	77
102	Nanosculpting reversed wavelength sensitivity into a photoswitchable iGluR. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2009</b> , 106, 6814-9	11.5	75
101	A phosphotyrosine switch regulates organic cation transporters. <i>Nature Communications</i> , <b>2016</b> , 7, 10880	17.4	74
100	Two-photon brightness of azobenzene photoswitches designed for glutamate receptor optogenetics. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2015</b> , 112, E776-85	11.5	74
99	Restoring Vision to the Blind with Chemical Photoswitches. <i>Chemical Reviews</i> , <b>2018</b> , 118, 10748-10773	68.1	73
98	Input-Specific Plasticity and Homeostasis at the Drosophila Larval Neuromuscular Junction. <i>Neuron</i> , <b>2017</b> , 93, 1388-1404.e10	13.9	68
97	Photoactivatable genetically encoded calcium indicators for targeted neuronal imaging. <i>Nature Methods</i> , <b>2015</b> , 12, 852-8	21.6	67
96	Critical role for Orai1 C-terminal domain and TM4 in CRAC channel gating. <i>Cell Research</i> , <b>2015</b> , 25, 963-80	4.7	65
95	Multiple C-terminal tail Ca(2+)/CaMs regulate Ca(V)1.2 function but do not mediate channel dimerization. <i>EMBO Journal</i> , <b>2010</b> , 29, 3924-38	13	63

94	Protein surface recognition by rational design: nanomolar ligands for potassium channels. <i>Journal of the American Chemical Society</i> , <b>2003</b> , 125, 12668-9	16.4	61
93	Optogenetic activation of LiGluR-expressing astrocytes evokes anion channel-mediated glutamate release. <i>Journal of Physiology</i> , <b>2012</b> , 590, 855-73	3.9	60
92	All optical interface for parallel, remote, and spatiotemporal control of neuronal activity. <i>Nano Letters</i> , <b>2007</b> , 7, 3859-63	11.5	60
91	Optical switches and triggers for the manipulation of ion channels and pores. <i>Molecular BioSystems</i> , <b>2007</b> , 3, 686-704		60
90	AMPA receptor/TARP stoichiometry visualized by single-molecule subunit counting. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2013</b> , 110, 5163-8	11.5	59
89	How far will you go to sense voltage?. <i>Neuron</i> , <b>2005</b> , 48, 719-25	13.9	57
88	Dual optical control and mechanistic insights into photoswitchable group II and III metabotropic glutamate receptors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2017</b> , 114, E3546-E3554	11.5	54
87	Copper regulates rest-activity cycles through the locus coeruleus-norepinephrine system. <i>Nature Chemical Biology</i> , <b>2018</b> , 14, 655-663	11.7	53
86	Restoration of patterned vision with an engineered photoactivatable G protein-coupled receptor. <i>Nature Communications</i> , <b>2017</b> , 8, 1862	17.4	53
85	The pore of the voltage-gated proton channel. <i>Neuron</i> , <b>2011</b> , 72, 991-1000	13.9	53
84	Electrochemical coupling in the voltage-dependent phosphatase Ci-VSP. <i>Nature Chemical Biology</i> , <b>2010</b> , 6, 369-75	11.7	53
83	Optical probing of a dynamic membrane interaction that regulates the TREK1 channel. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2011</b> , 108, 2605-10	11.5	52
82	Neuronal synapse interaction reconstituted between live cells and supported lipid bilayers. <i>Nature Chemical Biology</i> , <b>2005</b> , 1, 283-9	11.7	52
81	Tethered ligands reveal glutamate receptor desensitization depends on subunit occupancy. <i>Nature Chemical Biology</i> , <b>2014</b> , 10, 273-80	11.7	51
80	Conformational switch between slow and fast gating modes: allosteric regulation of voltage sensor mobility in the EAG K <sup>+</sup> channel. <i>Neuron</i> , <b>2002</b> , 35, 935-49	13.9	51
79	Restoration of high-sensitivity and adapting vision with a cone opsin. <i>Nature Communications</i> , <b>2019</b> , 10, 1221	17.4	50
78	Drosophila huntingtin-interacting protein 14 is a presynaptic protein required for photoreceptor synaptic transmission and expression of the palmitoylated proteins synaptosome-associated protein 25 and cysteine string protein. <i>Journal of Neuroscience</i> , <b>2007</b> , 27, 12874-83	6.6	49
77	A family of photoswitchable NMDA receptors. <i>ELife</i> , <b>2016</b> , 5,	8.9	47

76	Heterodimerization within the TREK channel subfamily produces a diverse family of highly regulated potassium channels. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2016</b> , 113, 4194-9	11.5	45
75	Controlling ionotropic and metabotropic glutamate receptors with light: principles and potential. <i>Current Opinion in Pharmacology</i> , <b>2015</b> , 20, 135-43	5.1	44
74	Neuromodulatory Regulation of Behavioral Individuality in Zebrafish. <i>Neuron</i> , <b>2016</b> , 91, 587-601	13.9	44
73	Optical Control of Dopamine Receptors Using a Photoswitchable Tethered Inverse Agonist. <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 18522-18535	16.4	43
72	Molecular recognition and self-assembly special feature: Calix[4]arene-based conical-shaped ligands for voltage-dependent potassium channels. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2009</b> , 106, 10482-6	11.5	43
71	Two-photon imaging of calcium in virally transfected striate cortical neurons of behaving monkey. <i>PLoS ONE</i> , <b>2010</b> , 5, e13829	3.7	42
70	Structural model of the TRPP2/PKD1 C-terminal coiled-coil complex produced by a combined computational and experimental approach. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2011</b> , 108, 10133-8	11.5	41
69	Optical control of sphingosine-1-phosphate formation and function. <i>Nature Chemical Biology</i> , <b>2019</b> , 15, 623-631	11.7	40
68	Optical control of neuronal activity using a light-operated GIRK channel opener (LOGO). <i>Chemical Science</i> , <b>2016</b> , 7, 2347-2352	9.4	39
67	Assembly stoichiometry of the GluK2/GluK5 kainate receptor complex. <i>Cell Reports</i> , <b>2012</b> , 1, 234-40	10.6	39
66	Cooperative Binding of Stromal Interaction Molecule 1 (STIM1) to the N and C Termini of Calcium Release-activated Calcium Modulator 1 (Orai1). <i>Journal of Biological Chemistry</i> , <b>2016</b> , 291, 334-41	5.4	37
65	A glutamate switch controls voltage-sensitive phosphatase function. <i>Nature Structural and Molecular Biology</i> , <b>2012</b> , 19, 633-41	17.6	37
64	Phospholipase D2 specifically regulates TREK potassium channels via direct interaction and local production of phosphatidic acid. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2014</b> , 111, 13547-52	11.5	36
63	Molecular mechanism of the assembly of an acid-sensing receptor ion channel complex. <i>Nature Communications</i> , <b>2012</b> , 3, 1252	17.4	36
62	Genetic screen for potassium leaky small mechanosensitive channels (MscS) in Escherichia coli: recognition of cytoplasmic $\alpha$ domain as a new gating element. <i>Journal of Biological Chemistry</i> , <b>2011</b> , 286, 877-88	5.4	35
61	Genetically encoded optical sensors of neuronal activity and cellular function. <i>Current Opinion in Neurobiology</i> , <b>2001</b> , 11, 601-7	7.6	34
60	A specialized molecular motion opens the Hv1 voltage-gated proton channel. <i>Nature Structural and Molecular Biology</i> , <b>2015</b> , 22, 283-290	17.6	33
59	Conduits of life's spark: a perspective on ion channel research since the birth of neuron. <i>Neuron</i> , <b>2013</b> , 80, 658-74	13.9	33



58	Genetically Targeted Optical Control of an Endogenous G Protein-Coupled Receptor. <i>Journal of the American Chemical Society</i> , <b>2019</b> , 141, 11522-11530	16.4	32
57	Subunit composition of a DEG/ENaC mechanosensory channel of <i>Caenorhabditis elegans</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2015</b> , 112, 11690-5	11.5	30
56	Alternative splicing of neuroligin regulates the rate of presynaptic differentiation. <i>Journal of Neuroscience</i> , <b>2010</b> , 30, 11435-46	6.6	29
55	A Toolkit for Orthogonal and in vivo Optical Manipulation of Ionotropic Glutamate Receptors. <i>Frontiers in Molecular Neuroscience</i> , <b>2016</b> , 9, 2	6.1	29
54	A spinal opsin controls early neural activity and drives a behavioral light response. <i>Current Biology</i> , <b>2015</b> , 25, 69-74	6.3	28
53	<i>Pseudomonas aeruginosa</i> Homoserine lactone activates store-operated cAMP and cystic fibrosis transmembrane regulator-dependent Cl <sup>-</sup> secretion by human airway epithelia. <i>Journal of Biological Chemistry</i> , <b>2010</b> , 285, 34850-63	5.4	28
52	Neuronal activation by GPI-linked neuroligin-1 displayed in synthetic lipid bilayer membranes. <i>Langmuir</i> , <b>2005</b> , 21, 10693-8	4	28
51	Shedding light on membrane proteins. <i>Trends in Neurosciences</i> , <b>2005</b> , 28, 472-9	13.3	27
50	Allosteric substrate switching in a voltage-sensing lipid phosphatase. <i>Nature Chemical Biology</i> , <b>2016</b> , 12, 261-7	11.7	26
49	Nanoengineering ion channels for optical control. <i>Physiology</i> , <b>2008</b> , 23, 238-47	9.8	26
48	Sequential Steps of CRAC Channel Activation. <i>Cell Reports</i> , <b>2017</b> , 19, 1929-1939	10.6	26
47	Synapses in the spotlight with synthetic optogenetics. <i>EMBO Reports</i> , <b>2017</b> , 18, 677-692	6.5	24
46	A new mechanism of voltage-dependent gating exposed by K10.1 channels interrupted between voltage sensor and pore. <i>Journal of General Physiology</i> , <b>2017</b> , 149, 577-593	3.4	24
45	Rapid feedback regulation of synaptic efficacy during high-frequency activity at the <i>Drosophila</i> larval neuromuscular junction. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2013</b> , 110, 9142-7	11.5	24
44	The Brain Prize 2013: the optogenetics revolution. <i>Trends in Neurosciences</i> , <b>2013</b> , 36, 557-60	13.3	23
43	Multiplexed temporally focused light shaping for high-resolution multi-cell targeting. <i>Optica</i> , <b>2018</b> , 5, 1478	8.6	22
42	Precise modulation of neuronal activity with synthetic photoswitchable ligands. <i>Current Opinion in Neurobiology</i> , <b>2017</b> , 45, 202-209	7.6	21
41	Stoichiometry and specific assembly of Best ion channels. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2014</b> , 111, 6491-6	11.5	20



40	Photoswitching of cell surface receptors using tethered ligands. <i>Methods in Molecular Biology</i> , <b>2014</b> , 1148, 45-68	1.4	19
39	Caenorhabditis elegans paraoxonase-like proteins control the functional expression of DEG/ENaC mechanosensory proteins. <i>Molecular Biology of the Cell</i> , <b>2016</b> , 27, 1272-85	3.5	19
38	Conformational pathway provides unique sensitivity to a synaptic mGluR. <i>Nature Communications</i> , <b>2019</b> , 10, 5572	17.4	19
37	Architecture and gating of Hv1 proton channels. <i>Journal of Physiology</i> , <b>2009</b> , 587, 5325-9	3.9	18
36	Colloids as mobile substrates for the implantation and integration of differentiated neurons into the mammalian brain. <i>PLoS ONE</i> , <b>2012</b> , 7, e30293	3.7	16
35	Optical Control of Lysophosphatidic Acid Signaling. <i>Journal of the American Chemical Society</i> , <b>2020</b> , 142, 10612-10616	16.4	15
34	Fast widefield imaging of neuronal structure and function with optical sectioning in vivo. <i>Science Advances</i> , <b>2020</b> , 6, eaaz3870	14.3	13
33	Two-photon scanning microscopy of in vivo sensory responses of cortical neurons genetically encoded with a fluorescent voltage sensor in rat. <i>Frontiers in Neural Circuits</i> , <b>2012</b> , 6, 15	3.5	12
32	Calmodulin overexpression does not alter Cav1.2 function or oligomerization state. <i>Channels</i> , <b>2011</b> , 5, 320-4	3	12
31	Specializations of a pheromonal glomerulus in the Drosophila olfactory system. <i>Journal of Neurophysiology</i> , <b>2011</b> , 105, 1711-21	3.2	11
30	Optogenetic Retinal Gene Therapy with the Light Gated GPCR Vertebrate Rhodopsin. <i>Methods in Molecular Biology</i> , <b>2018</b> , 1715, 177-189	1.4	9
29	Single ion channel imaging. <i>Methods in Enzymology</i> , <b>2003</b> , 361, 304-19	1.7	8
28	BMP signaling and microtubule organization regulate synaptic strength. <i>Neuroscience</i> , <b>2015</b> , 291, 155-66	3.9	7
27	Assembly of potassium channels. <i>Annals of the New York Academy of Sciences</i> , <b>1993</b> , 707, 51-9	6.5	7
26	Slow cardioacceleration mediated by noncholinergic transmission in the stellate ganglion of the cat. <i>Canadian Journal of Physiology and Pharmacology</i> , <b>1988</b> , 66, 1066-74	2.4	7
25	Experience, circuit dynamics, and forebrain recruitment in larval zebrafish prey capture. <i>ELife</i> , <b>2020</b> , 9,	8.9	6
24	Dimer interaction in the Hv1 proton channel. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2020</b> , 117, 20898-20907	11.5	6
23	Cell specific photoswitchable agonist for reversible control of endogenous dopamine receptors. <i>Nature Communications</i> , <b>2021</b> , 12, 4775	17.4	6

22	Selective Photoswitchable Allosteric Agonist of a G Protein-Coupled Receptor. <i>Journal of the American Chemical Society</i> , <b>2021</b> , 143, 8951-8956	16.4	5
21	Optical Control of Glutamate Receptors of the NMDA-Kind in Mammalian Neurons, with the Use of Photoswitchable Ligands. <i>Neuromethods</i> , <b>2018</b> , 293-325	0.4	4
20	MEC-10 and MEC-19 Reduce the Neurotoxicity of the MEC-4(d) DEG/ENaC Channel in <i>Caenorhabditis elegans</i> . <i>G3: Genes, Genomes, Genetics</i> , <b>2016</b> , 6, 1121-30	3.2	4
19	Molecular basis of K <sup>+</sup> channel inactivation gating. <i>Exs</i> , <b>1993</b> , 63, 338-51		4
18	Green fluorescent proteins (GFPs) for measuring voltage. <i>Cold Spring Harbor Protocols</i> , <b>2010</b> , 2010, pdb.top76	1.7	3
17	Green fluorescent protein-based sensors for detecting signal transduction and monitoring ion channel function. <i>Methods in Enzymology</i> , <b>2000</b> , 327, 249-59	13.9	2
16	Bringing optogenetics to the synapse. <i>Neuron</i> , <b>2013</b> , 79, 209-10	13.2	2
15	Measuring membrane voltage with fluorescent proteins. <i>Cold Spring Harbor Protocols</i> , <b>2013</b> , 2013, 606-13	3.4	2
14	Molecular handles for the mechanical manipulation of single-membrane proteins in living cells. <i>IEEE Transactions on Nanobioscience</i> , <b>2005</b> , 4, 269-76	17.4	2
13	Determinants of synapse diversity revealed by super-resolution quantal transmission and active zone imaging.. <i>Nature Communications</i> , <b>2022</b> , 13, 229	0.9	2
12	Measuring Behavioral Individuality in the Acoustic Startle Behavior in Zebrafish. <i>Bio-protocol</i> , <b>2017</b> , 7,		2
11	Multiplexed temporally focused light shaping for high-resolution multi-cell targeting		2
10	Conformational rearrangement of the NMDA receptor amino-terminal domain during activation and allosteric modulation. <i>Nature Communications</i> , <b>2021</b> , 12, 2694	17.4	2
9	Genetically Encoded Protein Sensors of Membrane Potential <b>2010</b> , 157-163		2
8	Structure-Based Design of Light-Controlled Proteins. <i>Neuromethods</i> , <b>2011</b> , 233-266	0.4	1
7	Multiple C-terminal tail Ca <sup>2+</sup> /CaMs regulate CaV1.2 function but do not mediate channel dimerization. <i>EMBO Journal</i> , <b>2010</b> , 29, 4062-4062	13	1
6	In vivo volumetric imaging of calcium and glutamate activity at synapses with high spatiotemporal resolution. <i>Nature Communications</i> , <b>2021</b> , 12, 6630	17.4	1
5	Fluorescent labeling for patch-clamp fluorometry (PCF) measurements of real-time protein motion in ion channels. <i>Methods in Molecular Biology</i> , <b>2015</b> , 1266, 93-106	1.4	1

- 4 How Do Voltage-Gated Channels Sense the Membrane Potential? **2003**, 209-214 o
- 3 3 Challenges and opportunities for optochemical genetics **2013**, 35-46
- 2 Photoswitchable Ligand-Gated Ion Channels. *Neuromethods*, **2011**, 267-285 o.4
- 1 Optogenetics **2022**,