Guo-Qiang Bi

List of Publications by Year
in descending order

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Version: 2024-02-01

84 papers	12,447 citations	94269 37 h-index	60497 81 g-index
91 all docs	91 docs citations	91 times ranked	12283 citing authors

#	Article	IF	Citations
1	Synaptic Modifications in Cultured Hippocampal Neurons: Dependence on Spike Timing, Synaptic Strength, and Postsynaptic Cell Type. Journal of Neuroscience, 1998, 18, 10464-10472.	1.7	3,916
2	Synaptic Modification by Correlated Activity: Hebb's Postulate Revisited. Annual Review of Neuroscience, 2001, 24, 139-166.	5.0	1,322
3	Stable Hebbian Learning from Spike Timing-Dependent Plasticity. Journal of Neuroscience, 2000, 20, 8812-8821.	1.7	657
4	Cell membrane resealing by a vesicular mechanism similar to neurotransmitter release. Science, 1994, 263, 390-393.	6.0	480
5	Super-resolution fluorescence imaging of organelles in live cells with photoswitchable membrane probes. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 13978-13983.	3.3	439
6	Bridging Biological and Artificial Neural Networks with Emerging Neuromorphic Devices: Fundamentals, Progress, and Challenges. Advanced Materials, 2019, 31, e1902761.	11.1	418
7	Cryo-EM structure of the mature dengue virus at 3.5-Ã... resolution. Nature Structural and Molecular Biology, 2013, 20, 105-110.	3.6	372
8	Versatile Roomâ€Temperatureâ€Phosphorescent Materials Prepared from Nâ€Substituted Naphthalimides: Emission Enhancement and Chemical Conjugation. Angewandte Chemie - International Edition, 2016, 55, 9872-9876.	7.2	343
9	Four ethical priorities for neurotechnologies and AI. Nature, 2017, 551, 159-163.	13.7	267
10	Calcium-regulated exocytosis is required for cell membrane resealing.. Journal of Cell Biology, 1995, 131, 1747-1758.	2.3	266
11	Coactivation and timing-dependent integration of synaptic potentiation and depression. Nature Neuroscience, 2005, 8, 187-193.	7.1	262
12	Processing of visually evoked innate fear by a non-canonical thalamic pathway. Nature Communications, 2015, 6, 6756.	5.8	260
13	Ultrafast Two-Photon Imaging of a High-Gain Voltage Indicator in Awake Behaving Mice. Cell, 2019, 179, 1590-1608.e23.	13.5	242
14	Distributed synaptic modification in neural networks induced by patterned stimulation. Nature, 1999, 401, 792-796.	13.7	227
15	Kinesin- and Myosin-driven Steps of Vesicle Recruitment for Ca2+-regulated Exocytosis. Journal of Cell Biology, 1997, 138, 999-1008.	2.3	203
16	Gain in sensitivity and loss in temporal contrast of STDP by dopaminergic modulation at hippocampal synapses. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 13028-13033.	3.3	187
17	Calcium Time Course as a Signal for Spike-Timingâ€"Dependent Plasticity. Journal of Neurophysiology, 2005, 93, 2600-2613.	0.9	156
18	Differentiation and Characterization of Excitatory and Inhibitory Synapses by Cryo-electron Tomography and Correlative Microscopy. Journal of Neuroscience, 2018, 38, 1493-1510.	1.7	136

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19	A VTA GABAergic Neural Circuit Mediates Visually Evoked Innate Defensive Responses. Neuron, 2019, 103, 473-488.e6.	3.8	135
20	Synaptic mechanisms of persistent reverberatory activity in neuronal networks. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 10333-10338.	3.3	129
21	Cryo-EM structures of herpes simplex virus type 1 portal vertex and packaged genome. Nature, 2019, 570, 257-261.	13.7	111
22	Neuroethics Questions to Guide Ethical Research in the International Brain Initiatives. Neuron, 2018, 100, 19-36.	3.8	104
23	An Ultra-Sensitive Step-Function Opsin for Minimally Invasive Optogenetic Stimulation in Mice and Macaques. Neuron, 2020, 107, 38-51.e8.	3.8	99
24	Axon formation: a molecular model for the generation of neuronal polarity. BioEssays, 2000, 22, 172-179.	1.2	82
25	Different functional states of fusion protein gB revealed on human cytomegalovirus by cryo electron tomography with Volta phase plate. PLoS Pathogens, 2018, 14, e1007452.	2.1	80
26	Versatile Roomâ€Temperatureâ€Phosphorescent Materials Prepared from Nâ€Substituted Naphthalimides: Emission Enhancement and Chemical Conjugation. Angewandte Chemie, 2016, 128, 10026-10030.	1.6	75
27	Selective Presynaptic Propagation of Long-Term Potentiation in Defined Neural Networks. Journal of Neuroscience, 2000, 20, 3233-3243.	1.7	74
28	Spatiotemporal specificity of synaptic plasticity: cellular rules and mechanisms. Biological Cybernetics, 2002, 87, 319-332.	0.6	69
29	Recommendations for Responsible Development and Application of Neurotechnologies. Neuroethics, 2021, 14, 365-386.	1.7	67
30	Molecular basis for CENP-N recognition of CENP-A nucleosome on the human kinetochore. Cell Research, 2018, 28, 374-378.	5.7	65
31	High-throughput mapping of a whole rhesus monkey brain at micrometer resolution. Nature Biotechnology, 2021, 39, 1521-1528.	9.4	61
32	Timing in synaptic plasticity: from detection to integration. Trends in Neurosciences, 2005, 28, 222-228.	4.2	60
33	Temporal modulation of spike-timing-dependent plasticity. Frontiers in Synaptic Neuroscience, 2010, 2, 19.	1.3	57
34	Probing Vesicle Dynamics in Single Hippocampal Synapses. Biophysical Journal, 2005, 89, 3615-3627.	0.2	55
35	Mesophasic organization of GABAA receptors in hippocampal inhibitory synapses. Nature Neuroscience, 2020, 23, 1589-1596.	7.1	52
36	Dendritic mitoflash as a putative signal for stabilizing long-term synaptic plasticity. Nature Communications, 2017, 8, 31.	5.8	50

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37	Temporal asymmetry in spike timing-dependent synaptic plasticity. Physiology and Behavior, 2002, 77, 551-555.	1.0	47
38	DNA-Packing Portal and Capsid-Associated Tegument Complexes in the Tumor Herpesvirus KSHV. Cell, 2019, 178, 1329-1343.e12.	13.5	45
39	Modular Competition Driven by NMDA Receptor Subtypes in Spike-Timing-Dependent Plasticity. Journal of Neurophysiology, 2007, 97, 2851-2862.	0.9	42
40	Highly Selective and Efficient Synthesis of 7-Aminoquinolines and Their Applications as Golgi-Localized Probes. ACS Medicinal Chemistry Letters, 2019, 10, 954-959.	1.3	40
41	Chemical Synthesis of K34â€Ubiquitylated H2B for Nucleosome Reconstitution and Singleâ€Particle Cryoâ€Electron Microscopy Structural Analysis. ChemBioChem, 2017, 18, 176-180.	1.3	38
42	Scalable volumetric imaging for ultrahigh-speed brain mapping at synaptic resolution. National Science Review, 2019, 6, 982-992.	4.6	38
43	Cross-modal coherent registration of whole mouse brains. Nature Methods, 2022, 19, 111-118.	9.0	36
44	Calcium and synaptic dynamics underlying reverberatory activity in neuronal networks. Physical Biology, 2007, 4, 91-103.	0.8	33
45	Electrically Controlled Neurochemical Release from Dualâ€Layer Conducting Polymer Films for Precise Modulation of Neural Network Activity in Rat Barrel Cortex. Advanced Functional Materials, 2018, 28, 1703988.	7.8	30
46	Cumulative effects of the ApoE genotype and gender on the synaptic proteome and oxidative stress in the mouse brain. International Journal of Neuropsychopharmacology, 2014, 17, 1863-1879.	1.0	28
47	Postsynaptic protein organization revealed by electron microscopy. Current Opinion in Structural Biology, 2019, 54, 152-160.	2.6	27
48	A pUL25 dimer interfaces the pseudorabies virus capsid and tegument. Journal of General Virology, 2017, 98, 2837-2849.	1.3	27
49	Synaptic modification in neural circuits: A timely action. BioEssays, 2002, 24, 212-222.	1.2	22
50	Cryo-EM structure of the human Î±5Î²3 GABAA receptor. Cell Research, 2018, 28, 958-961.	5.7	21
51	Glucose-sensing glucagon-like peptide-1 receptor neurons in the dorsomedial hypothalamus regulate glucose metabolism. Science Advances, 2022, 8, .	4.7	21
52	Accumulation of Dense Core Vesicles in Hippocampal Synapses Following Chronic Inactivity. Frontiers in Neuroanatomy, 2018, 12, 48.	0.9	20
53	Ring-shaped neuronal networks: a platform to study persistent activity. Lab on A Chip, 2011, 11, 1081.	3.1	19
54	Highly Fluorescent Dyeâ€Aggregateâ€Enhanced Energyâ€Transfer Nanoparticles for Neuronal Cell Imaging. Advanced Optical Materials, 2013, 1, 549-553.	3.6	19

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55	Presynaptic Endosomal Cathepsin D Regulates the Biogenesis of GABAergic Synaptic Vesicles. Cell Reports, 2019, 28, 1015-1028.e5.	2.9	17
56	Atomic structure of the human herpesvirus 6B capsid and capsid-associated tegument complexes. Nature Communications, 2019, 10, 5346.	5.8	16
57	Long-range GABAergic projections from the nucleus of the solitary tract. Molecular Brain, 2021, 14, 38.	1.3	16
58	Small quinolinium-based enzymatic probes via blue-to-red ratiometric fluorescence. Analyst, The, 2016, 141, 1483-1487.	1.7	15
59	Structures of capsid and capsid-associated tegument complex inside the Epsteinâ€“Barr virus. Nature Microbiology, 2020, 5, 1285-1298.	5.9	14
60	Neuronal Population Reconstruction From Ultra-Scale Optical Microscopy Images via Progressive Learning. IEEE Transactions on Medical Imaging, 2020, 39, 4034-4046.	5.4	14
61	Homeostatic regulation of spontaneous and evoked synaptic transmission in two steps. Molecular Brain, 2013, 6, 38.	1.3	13
62	Direct detection of optogenetically evoked oscillatory neuronal electrical activity in rats using SLOE sequence. NeuroImage, 2016, 125, 533-543.	2.1	13
63	Excitation wavelength optimization improves photostability of ASAP-family GEVIs. Molecular Brain, 2018, 11, 32.	1.3	13
64	Structure and plasticity of silent synapses in developing hippocampal neurons visualized by super-resolution imaging. Cell Discovery, 2020, 6, 8.	3.1	13
65	Ultrastructural analysis of neuronal synapses using state-of-the-art nano-imaging techniques. Neuroscience Bulletin, 2012, 28, 321-332.	1.5	12
66	An efficient protocol of cryo-correlative light and electron microscopy for the study of neuronal synapses. Biophysics Reports, 2019, 5, 111-122.	0.2	12
67	Unique dynamics and exocytosis properties of GABAergic synaptic vesicles revealed by three-dimensional single vesicle tracking. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	12
68	Guiding the Patterned Growth of Neuronal Axons and Dendrites Using Anisotropic Micropillar Scaffolds. Advanced Healthcare Materials, 2021, 10, e2100094.	3.9	10
69	Responsibility and Sustainability in Brain Science, Technology, and Neuroethics in Chinaâ€”a Culture-Oriented Perspective. Neuron, 2019, 101, 375-379.	3.8	9
70	Mapping thalamic-anterior cingulate monosynaptic inputs in adult mice. Molecular Pain, 2022, 18, 174480692210870.	1.0	9
71	Whole-brain mapping of efferent projections of the anterior cingulate cortex in adult male mice. Molecular Pain, 2022, 18, 174480692210945.	1.0	7
72	Corticosterone Signaling and a Lateral Habenulaâ€“Ventral Tegmental Area Circuit Modulate Compulsive Self-Injurious Behavior in a Rat Model. Journal of Neuroscience, 2018, 38, 5251-5266.	1.7	6

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73	Biphasic exocytosis of herpesvirus from hippocampal neurons and mechanistic implication to membrane fusion. Cell Discovery, 2020, 6, 2.	3.1	6
74	Towards Neuron Segmentation from Macaque Brain Images: A Weakly Supervised Approach. Lecture Notes in Computer Science, 2020, , 194-203.	1.0	6
75	A dynamical state underlying the second order maximum entropy principle in neuronal networks. Communications in Mathematical Sciences, 2017, 15, 665-692.	0.5	6
76	Reverberatory activity in neuronal networks in vitro. Science Bulletin, 2009, 54, 1828-1835.	4.3	4
77	Correlative light and electron microscopy for complex cellular structures on PDMS substrates with coded micro-patterns. Lab on A Chip, 2018, 18, 3840-3848.	3.1	4
78	A Phenomenological Calcium-Based Model of STDP. , 2010, , 571-591.		4
79	Measuring action potential-evoked transmission at individual synaptic contacts. Journal of Neural Engineering, 2012, 9, 036014.	1.8	1
80	Single-cell reconstruction reveals input patterns and pathways into corticotropin-releasing factor neurons in the central amygdala in mice. Communications Biology, 2022, 5, 322.	2.0	1
81	A cautionary tale of entropic criteria in assessing the validity of the maximum entropy principle. Europhysics Letters, 2019, 126, 38005.	0.7	0
82	High frequency optogenetic activation of inputs to the lateral amygdala forms distant association with foot-shock. Molecular Brain, 2020, 13, 44.	1.3	0
83	Reverberatory Activity in Neuronal Networks. , 2009, , 61-75.		0
84	Frontiers of electron microscopy for biomedical research. Scientia Sinica Vitae, 2020, 50, 1176-1191.	0.1	0