

# Guo-Qiang Bi

## List of Publications by Year in descending order

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84  
papers

12,447  
citations

87888

38  
h-index

60623

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. <i>Journal of Neuroscience</i> , 1998, 18, 10464-10472.	3.6	3,916
2	Synaptic Modification by Correlated Activity: Hebb's Postulate Revisited. <i>Annual Review of Neuroscience</i> , 2001, 24, 139-166.	10.7	1,322
3	Stable Hebbian Learning from Spike Timing-Dependent Plasticity. <i>Journal of Neuroscience</i> , 2000, 20, 8812-8821.	3.6	657
4	Cell membrane resealing by a vesicular mechanism similar to neurotransmitter release. <i>Science</i> , 1994, 263, 390-393.	12.6	480
5	Super-resolution fluorescence imaging of organelles in live cells with photoswitchable membrane probes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 13978-13983.	7.1	439
6	Bridging Biological and Artificial Neural Networks with Emerging Neuromorphic Devices: Fundamentals, Progress, and Challenges. <i>Advanced Materials</i> , 2019, 31, e1902761.	21.0	418
7	Cryo-EM structure of the mature dengue virus at 3.5-Å... resolution. <i>Nature Structural and Molecular Biology</i> , 2013, 20, 105-110.	8.2	372
8	Versatile Room-temperature Phosphorescent Materials Prepared from N-Substituted Naphthalimides: Emission Enhancement and Chemical Conjugation. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 9872-9876.	13.8	343
9	Four ethical priorities for neurotechnologies and AI. <i>Nature</i> , 2017, 551, 159-163.	27.8	267
10	Calcium-regulated exocytosis is required for cell membrane resealing. <i>Journal of Cell Biology</i> , 1995, 131, 1747-1758.	5.2	266
11	Coactivation and timing-dependent integration of synaptic potentiation and depression. <i>Nature Neuroscience</i> , 2005, 8, 187-193.	14.8	262
12	Processing of visually evoked innate fear by a non-canonical thalamic pathway. <i>Nature Communications</i> , 2015, 6, 6756.	12.8	260
13	Ultrafast Two-Photon Imaging of a High-Gain Voltage Indicator in Awake Behaving Mice. <i>Cell</i> , 2019, 179, 1590-1608.e23.	28.9	242
14	Distributed synaptic modification in neural networks induced by patterned stimulation. <i>Nature</i> , 1999, 401, 792-796.	27.8	227
15	Kinesin- and Myosin-driven Steps of Vesicle Recruitment for Ca <sup>2+</sup> -regulated Exocytosis. <i>Journal of Cell Biology</i> , 1997, 138, 999-1008.	5.2	203
16	Gain in sensitivity and loss in temporal contrast of STDP by dopaminergic modulation at hippocampal synapses. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 13028-13033.	7.1	187
17	Calcium Time Course as a Signal for Spike-Timing-Dependent Plasticity. <i>Journal of Neurophysiology</i> , 2005, 93, 2600-2613.	1.8	156
18	Differentiation and Characterization of Excitatory and Inhibitory Synapses by Cryo-electron Tomography and Correlative Microscopy. <i>Journal of Neuroscience</i> , 2018, 38, 1493-1510.	3.6	136

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19	A VTA GABAergic Neural Circuit Mediates Visually Evoked Innate Defensive Responses. <i>Neuron</i> , 2019, 103, 473-488.e6.	8.1	135
20	Synaptic mechanisms of persistent reverberatory activity in neuronal networks. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 10333-10338.	7.1	129
21	Cryo-EM structures of herpes simplex virus type 1 portal vertex and packaged genome. <i>Nature</i> , 2019, 570, 257-261.	27.8	111
22	Neuroethics Questions to Guide Ethical Research in the International Brain Initiatives. <i>Neuron</i> , 2018, 100, 19-36.	8.1	104
23	An Ultra-Sensitive Step-Function Opsin for Minimally Invasive Optogenetic Stimulation in Mice and Macaques. <i>Neuron</i> , 2020, 107, 38-51.e8.	8.1	99
24	Axon formation: a molecular model for the generation of neuronal polarity. <i>BioEssays</i> , 2000, 22, 172-179.	2.5	82
25	Different functional states of fusion protein gB revealed on human cytomegalovirus by cryo electron tomography with Volta phase plate. <i>PLoS Pathogens</i> , 2018, 14, e1007452.	4.7	80
26	Versatile Room-Temperature Phosphorescent Materials Prepared from Na-Substituted Naphthalimides: Emission Enhancement and Chemical Conjugation. <i>Angewandte Chemie</i> , 2016, 128, 10026-10030.	2.0	75
27	Selective Presynaptic Propagation of Long-Term Potentiation in Defined Neural Networks. <i>Journal of Neuroscience</i> , 2000, 20, 3233-3243.	3.6	74
28	Spatiotemporal specificity of synaptic plasticity: cellular rules and mechanisms. <i>Biological Cybernetics</i> , 2002, 87, 319-332.	1.3	69
29	Recommendations for Responsible Development and Application of Neurotechnologies. <i>Neuroethics</i> , 2021, 14, 365-386.	2.8	67
30	Molecular basis for CENP-N recognition of CENP-A nucleosome on the human kinetochore. <i>Cell Research</i> , 2018, 28, 374-378.	12.0	65
31	High-throughput mapping of a whole rhesus monkey brain at micrometer resolution. <i>Nature Biotechnology</i> , 2021, 39, 1521-1528.	17.5	61
32	Timing in synaptic plasticity: from detection to integration. <i>Trends in Neurosciences</i> , 2005, 28, 222-228.	8.6	60
33	Temporal modulation of spike-timing-dependent plasticity. <i>Frontiers in Synaptic Neuroscience</i> , 2010, 2, 19.	2.5	57
34	Probing Vesicle Dynamics in Single Hippocampal Synapses. <i>Biophysical Journal</i> , 2005, 89, 3615-3627.	0.5	55
35	Mesophasic organization of GABAA receptors in hippocampal inhibitory synapses. <i>Nature Neuroscience</i> , 2020, 23, 1589-1596.	14.8	52
36	Dendritic mitoflash as a putative signal for stabilizing long-term synaptic plasticity. <i>Nature Communications</i> , 2017, 8, 31.	12.8	50

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37	Temporal asymmetry in spike timing-dependent synaptic plasticity. <i>Physiology and Behavior</i> , 2002, 77, 551-555.	2.1	47
38	DNA-Packing Portal and Capsid-Associated Tegument Complexes in the Tumor Herpesvirus KSHV. <i>Cell</i> , 2019, 178, 1329-1343.e12.	28.9	45
39	Modular Competition Driven by NMDA Receptor Subtypes in Spike-Timing-Dependent Plasticity. <i>Journal of Neurophysiology</i> , 2007, 97, 2851-2862.	1.8	42
40	Highly Selective and Efficient Synthesis of 7-Aminoquinolines and Their Applications as Golgi-Localized Probes. <i>ACS Medicinal Chemistry Letters</i> , 2019, 10, 954-959.	2.8	40
41	Chemical Synthesis of K34-ubiquitylated H2B for Nucleosome Reconstitution and Single-particle Cryo-electron Microscopy Structural Analysis. <i>ChemBioChem</i> , 2017, 18, 176-180.	2.6	38
42	Scalable volumetric imaging for ultrahigh-speed brain mapping at synaptic resolution. <i>National Science Review</i> , 2019, 6, 982-992.	9.5	38
43	Cross-modal coherent registration of whole mouse brains. <i>Nature Methods</i> , 2022, 19, 111-118.	19.0	36
44	Calcium and synaptic dynamics underlying reverberatory activity in neuronal networks. <i>Physical Biology</i> , 2007, 4, 91-103.	1.8	33
45	Electrically Controlled Neurochemical Release from Dual-layer Conducting Polymer Films for Precise Modulation of Neural Network Activity in Rat Barrel Cortex. <i>Advanced Functional Materials</i> , 2018, 28, 1703988.	14.9	30
46	Cumulative effects of the ApoE genotype and gender on the synaptic proteome and oxidative stress in the mouse brain. <i>International Journal of Neuropsychopharmacology</i> , 2014, 17, 1863-1879.	2.1	28
47	Postsynaptic protein organization revealed by electron microscopy. <i>Current Opinion in Structural Biology</i> , 2019, 54, 152-160.	5.7	27
48	A pUL25 dimer interfaces the pseudorabies virus capsid and tegument. <i>Journal of General Virology</i> , 2017, 98, 2837-2849.	2.9	27
49	Synaptic modification in neural circuits: A timely action. <i>BioEssays</i> , 2002, 24, 212-222.	2.5	22
50	Cryo-EM structure of the human $\gamma 5$ GABAA receptor. <i>Cell Research</i> , 2018, 28, 958-961.	12.0	21
51	Glucose-sensing glucagon-like peptide-1 receptor neurons in the dorsomedial hypothalamus regulate glucose metabolism. <i>Science Advances</i> , 2022, 8, .	10.3	21
52	Accumulation of Dense Core Vesicles in Hippocampal Synapses Following Chronic Inactivity. <i>Frontiers in Neuroanatomy</i> , 2018, 12, 48.	1.7	20
53	Ring-shaped neuronal networks: a platform to study persistent activity. <i>Lab on A Chip</i> , 2011, 11, 1081.	6.0	19
54	Highly Fluorescent Dye-Aggregate-Enhanced Energy-Transfer Nanoparticles for Neuronal Cell Imaging. <i>Advanced Optical Materials</i> , 2013, 1, 549-553.	7.3	19

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55	Presynaptic Endosomal Cathepsin D Regulates the Biogenesis of GABAergic Synaptic Vesicles. <i>Cell Reports</i> , 2019, 28, 1015-1028.e5.	6.4	17
56	Atomic structure of the human herpesvirus 6B capsid and capsid-associated tegument complexes. <i>Nature Communications</i> , 2019, 10, 5346.	12.8	16
57	Long-range GABAergic projections from the nucleus of the solitary tract. <i>Molecular Brain</i> , 2021, 14, 38.	2.6	16
58	Small quinolinium-based enzymatic probes via blue-to-red ratiometric fluorescence. <i>Analyst</i> , The, 2016, 141, 1483-1487.	3.5	15
59	Structures of capsid and capsid-associated tegument complex inside the Epstein-Barr virus. <i>Nature Microbiology</i> , 2020, 5, 1285-1298.	13.3	14
60	Neuronal Population Reconstruction From Ultra-Scale Optical Microscopy Images via Progressive Learning. <i>IEEE Transactions on Medical Imaging</i> , 2020, 39, 4034-4046.	8.9	14
61	Homeostatic regulation of spontaneous and evoked synaptic transmission in two steps. <i>Molecular Brain</i> , 2013, 6, 38.	2.6	13
62	Direct detection of optogenetically evoked oscillatory neuronal electrical activity in rats using SLOE sequence. <i>NeuroImage</i> , 2016, 125, 533-543.	4.2	13
63	Excitation wavelength optimization improves photostability of ASAP-family GEVIs. <i>Molecular Brain</i> , 2018, 11, 32.	2.6	13
64	Structure and plasticity of silent synapses in developing hippocampal neurons visualized by super-resolution imaging. <i>Cell Discovery</i> , 2020, 6, 8.	6.7	13
65	Ultrastructural analysis of neuronal synapses using state-of-the-art nano-imaging techniques. <i>Neuroscience Bulletin</i> , 2012, 28, 321-332.	2.9	12
66	An efficient protocol of cryo-correlative light and electron microscopy for the study of neuronal synapses. <i>Biophysics Reports</i> , 2019, 5, 111-122.	0.8	12
67	Unique dynamics and exocytosis properties of GABAergic synaptic vesicles revealed by three-dimensional single vesicle tracking. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	12
68	Guiding the Patterned Growth of Neuronal Axons and Dendrites Using Anisotropic Micropillar Scaffolds. <i>Advanced Healthcare Materials</i> , 2021, 10, e2100094.	7.6	10
69	Responsibility and Sustainability in Brain Science, Technology, and Neuroethics in China—a Culture-Oriented Perspective. <i>Neuron</i> , 2019, 101, 375-379.	8.1	9
70	Mapping thalamic-anterior cingulate monosynaptic inputs in adult mice. <i>Molecular Pain</i> , 2022, 18, 174480692210870.	2.1	9
71	Whole-brain mapping of efferent projections of the anterior cingulate cortex in adult male mice. <i>Molecular Pain</i> , 2022, 18, 174480692210945.	2.1	7
72	Corticosterone Signaling and a Lateral Habenula-Ventral Tegmental Area Circuit Modulate Compulsive Self-Injurious Behavior in a Rat Model. <i>Journal of Neuroscience</i> , 2018, 38, 5251-5266.	3.6	6

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73	Biphasic exocytosis of herpesvirus from hippocampal neurons and mechanistic implication to membrane fusion. <i>Cell Discovery</i> , 2020, 6, 2.	6.7	6
74	Towards Neuron Segmentation from Macaque Brain Images: A Weakly Supervised Approach. <i>Lecture Notes in Computer Science</i> , 2020, , 194-203.	1.3	6
75	A dynamical state underlying the second order maximum entropy principle in neuronal networks. <i>Communications in Mathematical Sciences</i> , 2017, 15, 665-692.	1.0	6
76	Reverberatory activity in neuronal networks in vitro. <i>Science Bulletin</i> , 2009, 54, 1828-1835.	9.0	4
77	Correlative light and electron microscopy for complex cellular structures on PDMS substrates with coded micro-patterns. <i>Lab on A Chip</i> , 2018, 18, 3840-3848.	6.0	4
78	A Phenomenological Calcium-Based Model of STDP. , 2010, , 571-591.		4
79	Measuring action potential-evoked transmission at individual synaptic contacts. <i>Journal of Neural Engineering</i> , 2012, 9, 036014.	3.5	1
80	Single-cell reconstruction reveals input patterns and pathways into corticotropin-releasing factor neurons in the central amygdala in mice. <i>Communications Biology</i> , 2022, 5, 322.	4.4	1
81	A cautionary tale of entropic criteria in assessing the validity of the maximum entropy principle. <i>Europhysics Letters</i> , 2019, 126, 38005.	2.0	0
82	High frequency optogenetic activation of inputs to the lateral amygdala forms distant association with foot-shock. <i>Molecular Brain</i> , 2020, 13, 44.	2.6	0
83	Reverberatory Activity in Neuronal Networks. , 2009, , 61-75.		0
84	Frontiers of electron microscopy for biomedical research. <i>Scientia Sinica Vitae</i> , 2020, 50, 1176-1191.	0.3	0