Bhanu P Jena

List of Publications by Year
in descending order

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138 papers	3,129 citations	159585 30 h-index	197818 49 g-index
150 all docs	150 docs citations	150 times ranked	2150 citing authors

#	Article	IF	Citations
1	Aquaporin 1 regulates GTP-induced rapid gating of water in secretory vesicles. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 4720-4724.	7.1	147
2	SNAREs in Opposing Bilayers Interact in a Circular Array to Form Conducting Pores. Biophysical Journal, 2002, 83, 2522-2527.	0.5	114
3	Structure and Composition of the Fusion Pore. Biophysical Journal, 2003, 84, 1337-1343.	0.5	113
4	Structure and Dynamics of the Fusion Pores in Live GH-Secreting Cells Revealed Using Atomic Force Microscopy. Endocrinology, 2002, 143, 1144-1144.	2.8	111
5	Reconstituted Fusion Pore. Biophysical Journal, 2003, 85, 2035-2043.	0.5	109
6	STRUCTURE AND DYNAMICS OF THE FUSION PORE IN LIVE CELLS. Cell Biology International, 2002, 26, 35-42.	3.0	92
7	Calcium drives fusion of SNARE-apposed bilayers. Cell Biology International, 2004, 28, 19-31.	3.0	89
8	Structure, isolation, composition and reconstitution of the neuronal fusion pore. Cell Biology International, 2004, 28, 699-708.	3.0	89
9	Vesicle swelling regulates content expulsion during secretion. Cell Biology International, 2004, 28, 709-716.	3.0	80
10	Regulation of the water channel aquaporin-1: isolation and reconstitution of the regulatory complex. Cell Biology International, 2004, 28, 7-17.	3.0	75
11	RAPID ALDOSTERONE-INDUCED CELL VOLUME INCREASE OF ENDOTHELIAL CELLS MEASURED BY THE ATOMIC FORCE MICROSCOPE. Cell Biology International, 1997, 21, 759-768.	3.0	74
12	Involvement of Water Channels in Synaptic Vesicle Swelling. Experimental Biology and Medicine, 2005, 230, 674-680.	2.4	74
13	New Structure Involved in Transient Membrane Fusion and Exocytosis. Annals of the New York Academy of Sciences, 2002, 971, 254-256.	3.8	73
14	Size of Supramolecular SNARE Complex:Â Membrane-Directed Self-Assembly. Journal of the American Chemical Society, 2005, 127, 10156-10157.	13.7	73
15	Discovery of the Porosome: revealing the molecular mechanism of secretion and membrane fusion in cells. Journal of Cellular and Molecular Medicine, 2004, 8, 1-21.	3.6	64
16	Neuronal fusion pore assembly requires membrane cholesterol. Cell Biology International, 2007, 31, 1301-1308.	3.0	59
17	Energy-Dependent Disassembly of Self-Assembled SNARE Complex:Â Observation at Nanometer Resolution Using Atomic Force Microscopy. Journal of the American Chemical Society, 2006, 128, 26-27.	13.7	55
18	THE NUMBER OF SECRETORY VESICLES REMAINS UNCHANGED FOLLOWING EXOCYTOSIS. Cell Biology International, 2002, 26, 29-33.	3.0	42

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19	Molecular Machinery and Mechanism of Cell Secretion. Experimental Biology and Medicine, 2005, 230, 307-319.	2.4	42
20	Role of SNAREs in Membrane Fusion. Advances in Experimental Medicine and Biology, 2011, 713, 13-32.	1.6	41
21	Ca²⁺â€“dimethylphosphate complex formation: Providing insight into Ca²⁺â€mediated local dehydration and membrane fusion in cells. Cell Biology International, 2008, 32, 361-366.	3.0	40
22	Functionalized nanoparticles enable tracking the rapid entry and release of doxorubicin in human pancreatic cancer cells. Micron, 2017, 92, 25-31.	2.2	40
23	CXCR2 Macromolecular Complex in Pancreatic Cancer: A Potential Therapeutic Target in Tumor Growth. Translational Oncology, 2013, 6, 216-225.	3.7	39
24	Effect of tyrosine kinase inhibition on basal and epidermal growth factor-stimulated human Caco-2 enterocyte sheet migration and proliferation. Journal of Cellular Physiology, 1994, 160, 491-501.	4.1	36
25	Direct interaction between SNAP-23 and L-type Ca2+channel. Journal of Cellular and Molecular Medicine, 2005, 9, 380-386.	3.6	36
26	Secretion machinery at the cell plasma membrane. Current Opinion in Structural Biology, 2007, 17, 437-443.	5.7	36
27	Structure and Dynamics of the Fusion Pores in Live GH-Secreting Cells Revealed Using Atomic Force Microscopy. Endocrinology, 2002, 143, 1144-1144.	2.8	35
28	Nanothermometry Measure of Muscle Efficiency. Nano Letters, 2017, 17, 1262-1268.	9.1	34
29	Chapter 13 Nanoâ€Scale Imaging and Dynamics of Amylinâ€Membrane Interactions and Its Implication in Type II Diabetes Mellitus. Methods in Cell Biology, 2008, 90, 267-286.	1.1	33
30	Porosome: The Secretory Portal in Cells. Biochemistry, 2009, 48, 4009-4018.	2.5	32
31	Neuronal porosome proteome: Molecular dynamics and architecture. Journal of Proteomics, 2012, 75, 3952-3962.	2.4	32
32	Involvement of vH⁺â€ATPase in synaptic vesicle swelling. Journal of Neuroscience Research, 2010, 88, 95-101.	2.9	31
33	Fusion pore or porosome: structure and dynamics. Journal of Endocrinology, 2003, 176, 169-174.	2.6	30
34	COPII-Dependent ER Export: A Critical Component of Insulin Biogenesis and Î²-Cell ER Homeostasis. Molecular Endocrinology, 2015, 29, 1156-1169.	3.7	30
35	Ca²⁺ Bridging of Apposed Phospholipid Bilayers. Journal of Physical Chemistry B, 2010, 114, 13249-13254.	2.6	29
36	Membraneâ€directed molecular assembly of the neuronal SNARE complex. Journal of Cellular and Molecular Medicine, 2011, 15, 31-37.	3.6	29

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37	Patch clamped single pancreatic zymogen granules: Direct measurements of ion channel activities at the granule membrane. Pancreatology, 2005, 5, 443-449.	1.1	28
38	Nanoscale imaging using differential expansion microscopy. Histochemistry and Cell Biology, 2020, 153, 469-480.	1.7	28
39	THE NATIVE MEMBRANE FUSION MACHINERY IN CELLS. Cell Biology International, 1998, 22, 657-670.	3.0	27
40	Circular dichroism (CD) spectroscopy of the assembly and disassembly of SNAREs: The proteins involved in membrane fusion in cells. Chemical Physics Letters, 2008, 462, 6-9.	2.6	27
41	Structure of membraneâ€associated neuronal SNARE complex: implication in neurotransmitter release. Journal of Cellular and Molecular Medicine, 2009, 13, 4161-4165.	3.6	27
42	Impaired Hepatocyte Glucose Transport Protein (GLUT2) Internalization in Chronic Pancreatitis. Pancreas, 2001, 22, 172-178.	1.1	26
43	Porosome in astrocytes. Journal of Cellular and Molecular Medicine, 2009, 13, 365-372.	3.6	26
44	Membrane Lipids Influence Protein Complex Assemblyâ^'Disassembly. Journal of the American Chemical Society, 2010, 132, 5596-5597.	13.7	26
45	X-ray solution structure of the native neuronal porosome-synaptic vesicle complex: Implication in neurotransmitter release. Micron, 2014, 56, 37-43.	2.2	26
46	Exosome-enriched fractions from MS B cells induce oligodendrocyte death. Neurology: Neuroimmunology and NeuroInflammation, 2019, 6, e550.	6.0	26
47	Membrane Fusion: Role of SNAREs and Calcium. Protein and Peptide Letters, 2009, 16, 712-717.	0.9	23
48	3D organization and function of the cell: Golgi budding and vesicle biogenesis to docking at the porosome complex. Histochemistry and Cell Biology, 2012, 137, 703-718.	1.7	23
49	Chaperone coâ€inducer BGPâ€15 mitigates early contractile dysfunction of the soleus muscle in a rat ICU model. Acta Physiologica, 2020, 229, e13425.	3.8	23
50	Cell secretion machinery: Studies using the AFM. Ultramicroscopy, 2006, 106, 663-669.	1.9	22
51	Cholesterol is critical to the integrity of neuronal porosome/fusion pore. Ultramicroscopy, 2006, 106, 674-677.	1.9	22
52	Atomic force microscopy: High resolution dynamic imaging of cellular and molecular structure in health and disease. Journal of Cellular Physiology, 2013, 228, 1949-1955.	4.1	21
53	N-ethylmaleimide-Sensitive Factor is a Right-Handed Molecular Motor. Journal of Biomedical Nanotechnology, 2007, 3, 209-211.	1.1	21
54	GÂi3in Pancreatic Zymogen Granules Participates in Vesicular Fusion. Journal of Biochemistry, 2002, 131, 815-820.	1.7	19

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55	The Atomic Force Microscope in the Study of Membrane Fusion and Exocytosis. Methods in Cell Biology, 2002, 68, 33-50.	1.1	19
56	Involvement of cholesterol in synaptic vesicle swelling. Experimental Biology and Medicine, 2010, 235, 470-477.	2.4	19
57	Conformation states of the neuronal porosome complex. Cell Biology International, 2010, 34, 1129-1132.	3.0	18
58	Proteome of the porosome complex in human airway epithelia: Interaction with the cystic fibrosis transmembrane conductance regulator (CFTR). Journal of Proteomics, 2014, 96, 82-91.	2.4	18
59	â€˜Porosomeâ€™ discovered nearly 20Âyears ago provides molecular insights into the kissâ€andâ€run mechanism of cell secretion. Journal of Cellular and Molecular Medicine, 2015, 19, 1427-1440.	3.6	18
60	Secretory vesicles in live cells are not free-floating but tethered to filamentous structures: A study using photonic force microscopy. Ultramicroscopy, 2006, 106, 670-673.	1.9	17
61	Functional Organization of the Porosome Complex and Associated Structures Facilitating Cellular Secretion. Physiology, 2009, 24, 367-376.	3.1	17
62	Aquaporin-assisted and ER-mediated mitochondrial fission: A hypothesis. Micron, 2013, 47, 50-58.	2.2	17
63	Unique Lipid Chemistry of Synaptic Vesicle and Synaptosome Membrane Revealed Using Mass Spectrometry. ACS Chemical Neuroscience, 2017, 8, 1163-1169.	3.5	17
64	Involvement of Î²-adrenergic receptor in synaptic vesicle swelling and implication in neurotransmitter release. Journal of Cellular and Molecular Medicine, 2011, 15, 572-576.	3.6	15
65	Neuronal porosome lipidome. Journal of Cellular and Molecular Medicine, 2014, 18, 1927-1937.	3.6	15
66	LOCALIZATION OF SH-PTP1 TO SYNAPTIC VESICLES: A POSSIBLE ROLE IN NEUROTRANSMISSION. Cell Biology International, 1997, 21, 469-476.	3.0	14
67	Proteome of the insulin-secreting Min6 cell porosome complex: Involvement of Hsp90 in its assembly and function. Journal of Proteomics, 2015, 114, 83-92.	2.4	14
68	Regulation of hepatic circadian metabolism by the E3 ubiquitin ligase HRD1-controlled CREBH/PPARÎ± transcriptional program. Molecular Metabolism, 2021, 49, 101192.	6.5	14
69	Secretory vesicles transiently dock and fuse at the porosome to discharge contents during cell secretion. Cell Biology International, 2010, 34, 3-12.	3.0	14
70	Cell secretion and membrane fusion. Domestic Animal Endocrinology, 2005, 29, 145-165.	1.6	13
71	Nanoscale 3D contour map of protein assembly within the astrocyte porosome complex. Cell Biology International, 2009, 33, 224-229.	3.0	13
72	Matriptase activation and shedding through PDGF-D-mediated extracellular acidosis. American Journal of Physiology - Cell Physiology, 2016, 310, C293-C304.	4.6	13

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73	Functional Reconstitution of the Insulin-Secreting Porosome Complex in Live Cells. Endocrinology, 2016, 157, 54-60.	2.8	12
74	Exosomes in Epilepsy of Tuberous Sclerosis Complex: Carriers of Pro-Inflammatory MicroRNAs. Non-coding RNA, 2021, 7, 40.	2.6	12
75	ATOMIC FORCE MICROSCOPE: PROVIDING NEW INSIGHTS ON THE STRUCTURE AND FUNCTION OF LIVING CELLS. Cell Biology International, 1997, 21, 683-684.	3.0	11
76	Nanothermometry Reveals Calcium-Induced Remodeling of Myosin. Nano Letters, 2018, 18, 7021-7029.	9.1	10
77	Porosome: the universal molecular machinery for cell secretion. Molecules and Cells, 2008, 26, 517-29.	2.6	10
78	Pertussis toxin-mediated adp-ribosylation of rabbit luteal Gi uncouples enkephalin inhibition of adenylyl cyclase. International Journal of Biochemistry & Cell Biology, 1990, 22, 31-37.	0.5	9
79	BINDING CONTRIBUTION BETWEEN SYNAPTIC VESICLE MEMBRANE AND PLASMA MEMBRANE PROTEINS IN NEURONS: AN AFM STUDY. Cell Biology International, 1998, 22, 649-655.	3.0	9
80	Tribute to Professor Bhanu P. Jena. Journal of Cellular and Molecular Medicine, 2006, 10, 270-270.	3.6	9
81	Human skeletal muscle cell atlas: Unraveling cellular secrets utilizing â€˜muscle-on-a-chipâ€™, differential expansion microscopy, mass spectrometry, nanothermometry and machine learning. Micron, 2019, 117, 55-59.	2.2	9
82	Fusion Pore in Live Cells. Physiology, 2002, 17, 219-222.	3.1	9
83	Evidence for a rabbit luteal ADP-ribosyltransferase activity which appears to be capable of activating adenylyl cyclase. International Journal of Biochemistry & Cell Biology, 1991, 23, 549-559.	0.5	8
84	Chapter 2 Intracellular Organelle Dynamics at nm Resolution. Methods in Cell Biology, 2008, 90, 19-37.	1.1	8
85	Water channels in platelet volume regulation. Journal of Cellular and Molecular Medicine, 2012, 16, 945-949.	3.6	8
86	Porosome: the universal secretory portal in cells. Biomedical Reviews, 2014, 21, 1.	0.6	8
87	Porosome: the secretory portal. Experimental Biology and Medicine, 2012, 237, 748-757.	2.4	6
88	Lysophosphatidylcholine inhibits membraneâ€associated SNARE complex disassembly. Journal of Cellular and Molecular Medicine, 2012, 16, 1701-1708.	3.6	6
89	Porosome: The Secretory NanoMachine in Cells. Methods in Molecular Biology, 2012, 931, 345-365.	0.9	6
90	Neuronal porosome â€“ The secretory portal at the nerve terminal: Its structureâ€“function, composition, and reconstitution. Journal of Molecular Structure, 2014, 1073, 187-195.	3.6	6

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91	Gd-Doped Superparamagnetic Magnetite Nanoparticles for Potential Cancer Theranostics. , 0, , .		6
92	Atomic Force Microscopy in the Study of Macromolecular Interactions in Hemostasis and Thrombosis: Utility for Investigation of the Antiphospholipid Syndrome. , 0, , 267-286.		5
93	Chapter 9 Understanding Membrane Fusion. Methods in Cell Biology, 2008, 90, 183-198.	1.1	5
94	Nanometric features of myosin filaments extracted from a single muscle fiber to uncover the mechanisms underlying organized motility. Archives of Biochemistry and Biophysics, 2015, 583, 1-8.	3.0	5
95	The neuronal porosome complex in health and disease. Experimental Biology and Medicine, 2016, 241, 115-130.	2.4	5
96	High-Speed Atomic Force Microscopy of Biomolecules in Motion. , 0, , 221-247.		4
97	Human Platelet Vesicles Exhibit Distinct Size and Proteome. Journal of Proteome Research, 2017, 16, 2333-2338.	3.7	4
98	Valproate inhibits glucose-stimulated insulin secretion in beta cells. Histochemistry and Cell Biology, 2018, 150, 395-401.	1.7	4
99	INSIGHTS ON MEMBRANE FUSION. Cell Biology International, 2000, 24, 769-771.	3.0	3
100	Molecular architecture of mouse and human pancreatic zymogen granules: protein components and their copy numbers. Biophysics Reports, 2018, 4, 94-103.	0.8	3
101	Secretion induces cell pH dynamics impacting assembly-disassembly of the fusion protein complex: A combined fluorescence and atomic force microscopy study. Seminars in Cell and Developmental Biology, 2018, 73, 57-63.	5.0	3
102	Self-Assembly and Biogenesis of the Cellular Membrane are Dictated by Membrane Stretch and Composition. Journal of Physical Chemistry B, 2019, 123, 6997-7005.	2.6	3
103	Human Skeletal Muscle Cells on Engineered 3D Platform Express Key Growth and Developmental Proteins. ACS Biomaterials Science and Engineering, 2019, 5, 970-976.	5.2	3
104	Res-CR-Net, a residual network with a novel architecture optimized for the semantic segmentation of microscopy images. Machine Learning: Science and Technology, 2020, 1, 045004.	5.0	3
105	Cellular Interactions of Nano Drug Delivery Systems. , 0, , 113-136.		2
106	Chapter 8 Assembly and Disassembly of SNAREs in Membrane Fusion. Methods in Cell Biology, 2008, 90, 157-182.	1.1	2
107	Atomic force microscopy: Unraveling the fundamental principles governing secretion and membrane fusion in cells. Ultramicroscopy, 2009, 109, 1094-1104.	1.9	2
108	Myosin: Cellular Molecular Motor. , 2020, , 79-89.		2

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109	Porosome in Cystic Fibrosis. Discoveries, 2014, 2, e24.	2.3	2
110	Introduction to use of atomic force microscopy and optical tweezers in biology. Microscopy Research and Technique, 1999, 44, 311-311.	2.2	1
111	Addendum to â€œRegulation of the water channel aquaporin-1: isolation and reconstitution of the regulatory complexâ€•[Cell Biol. Int. 28(1) (2004) 7â€“17]1. Cell Biology International, 2004, 28, 421.	3.0	1
112	Properties of Microbial Cell Surfaces Examined by Atomic Force Microscopy. , 0, , 69-93.		1
113	Scanning Probe Microscopy of Plant Cell Wall and Its Constituents. , 0, , 95-112.		1
114	Adapting AFM Techniques for Studies on Living Cells. , 0, , 137-158.		1
115	Preface. Methods in Cell Biology, 2008, 90, xvii-xix.	1.1	1
116	Aquaporin regulation: Lessons from secretory vesicles. Vitamins and Hormones, 2020, 112, 147-162.	1.7	1
117	vH+-ATPase-induced intracellular acidification is critical to glucose-stimulated insulin secretion in beta cells. Histochemistry and Cell Biology, 2020, 153, 279-285.	1.7	1
118	Porosome. Methods in Molecular Biology, 2006, 319, 295-316.	0.9	1
119	Cellular Nanomachines. , 2020, , .		1
120	The optimized quantum dot mediated thermometry reveals isoform specific differences in efficiency of myosin extracted from muscle mini bundles. Archives of Biochemistry and Biophysics, 2022, 722, 109212.	3.0	1
121	Mechanisms of Avidity Modulation in Leukocyte Adhesion Studied by AFM. , 0, , 169-180.		0
122	Resolving the Thickness and Micromechanical Properties of Lipid Bilayers and Vesicles Using AFM. , 0, , 181-200.		0
123	Imaging Soft Surfaces by SFM. , 0, , 201-219.		0
124	Atomic Force Microscopy in Cytogenetics. , 0, , 249-266.		0
125	Intermolecular Forces of Leukocyte Adhesion Molecules. , 0, , 159-168.		0
126	Chapter 1 Extracellular Dynamics at nm Resolution in Live Cells. Methods in Cell Biology, 2008, 90, 1-18.	1.1	0

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127	Understanding Cell Secretion and Membrane Fusion Processes on the Nanoscale Using the Atomic Force Microscope. , 2011, , 99-115.		0
128	Unraveling the Membrane Fusion in Secretory Cells at the NM-Level: A Nanobioengineering Approach. , 2012, , 27-43.		0
129	Porosomesâ€"The Universal Secretory Portals in Cells. , 2014, , 1-16.		0
130	Mechanism of Membrane Biogenesis. FASEB Journal, 2018, 32, 671.11.	0.5	0
131	Valproate Prevents a Cytosolic vH + ATPase Subunit Insertion on Insulin Granule Membrane and Compromises Insulin Release in Min6 Cells. FASEB Journal, 2018, 32, lb191.	0.5	0
132	Human Skeletal Muscleâ€onâ€aâ€Chip. FASEB Journal, 2019, 33, lb645.	0.5	0
133	Sodium Acrylateâ€Induced Differential Expansion of Cellular Organelles. FASEB Journal, 2019, 33, 610.12.	0.5	0
134	Porosome: Cells Secretory Nanomachine. , 2020, , 1-39.		0
135	Assembly of Cellular Nanomachines. , 2020, , 91-104.		0
136	Chaperonin: Protein Folding Machinery in Cells. , 2020, , 49-56.		0
137	Porosomes: Supramolecular Structures at the Synaptosome Membrane Involved in Vesicle Docking, Fusion, and Neurotransmitter Release. Neuromethods, 2018, , 209-225.	0.3	0
138	The Optimized Quantum Dots Mediated Thermometry Reveals the Efficiency of Myosin Extracted from Muscle Mini Bundles. FASEB Journal, 2022, 36, .	0.5	0