Niels Volkmann

List of Publications by Year
in descending order

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68	4,856	147801	114465
papers	citations	31 h-index	63 g-index

73	73	73	5850
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The complexin C-terminal amphipathic helix stabilizes the fusion pore open state by sculpting membranes. Nature Structural and Molecular Biology, 2022, 29, 97-107.	8.2	15
2	The actomyosin interface contains an evolutionary conserved core and an ancillary interface involved in specificity. Nature Communications, 2021, 12, 1892.	12.8	23
3	Rapid tool for cell nanoarchitecture integrity assessment. Journal of Structural Biology, 2021, 213, 107801.	2.8	4
4	Extracellular matrix micropatterning technology for whole cell cryogenic electron microscopy studies. Journal of Micromechanics and Microengineering, 2019, 29, 115018.	2.6	28
5	High Rac1 activity is functionally translated into cytosolic structures with unique nanoscale cytoskeletal architecture. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 1267-1272.	7.1	35
6	Biophysical Characterization of a Nanodisc with and without BAX: An Integrative Study Using Molecular Dynamics Simulations and Cryo-EM. Structure, 2019, 27, 988-999.e4.	3.3	19
7	Electron cryo-tomography of vestibular hair-cell stereocilia. Journal of Structural Biology, 2019, 206, 149-155.	2.8	16
8	Conformational Equilibrium of Human Platelet Integrin Investigated by Three-Dimensional Electron Cryo-Microscopy. Sub-Cellular Biochemistry, 2018, 87, 353-363.	2.4	9
9	Segmentation of Features in Electron Tomographic Reconstructions. Biological and Medical Physics Series, 2018, , 301-318.	0.4	1
10	Marker-free method for accurate alignment between correlated light, cryo-light, and electron cryo-microscopy data using sample support features. Journal of Structural Biology, 2018, 201, 46-51.	2.8	17
11	Matrix vesicles from chondrocytes and osteoblasts: Their biogenesis, properties, functions and biomimetic models. Biochimica Et Biophysica Acta - General Subjects, 2018, 1862, 532-546.	2.4	131
12	Does self-organized criticality drive leading edge protrusion?. Biophysical Reviews, 2018, 10, 1571-1575.	3.2	0
13	Local Tension on Talin in Focal Adhesions Correlates with F-Actin Alignment at the NanometerÂScale. Biophysical Journal, 2018, 115, 1569-1579.	0.5	28
14	Nano-scale actin-network characterization of fibroblast cells lacking functional Arp2/3 complex. Journal of Structural Biology, 2017, 197, 312-321.	2.8	21
15	Ist1 regulates ESCRT-III assembly and function during multivesicular endosome biogenesis in Caenorhabditis elegans embryos. Nature Communications, 2017, 8, 1439.	12.8	38
16	Unraveling the Molecular Details of the Cell-ECM Interface: 3D Structures of Membrane-embedded Integrin Complexes. Microscopy and Microanalysis, 2017, 23, 1102-1103.	0.4	0
17	Structure of anthrax lethal toxin prepore complex suggests a pathway for efficient cell entry. Journal of General Physiology, 2016, 148, 313-324.	1.9	16
18	Three-Dimensional Structures of Full-Length, Membrane-Embedded Human Î±IIbÎ²3 Integrin Complexes. Biophysical Journal, 2016, 110, 798-809.	0.5	53

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19	Molecular Characterization of Leading Edge Protrusions in the Absence of Arp2/3 Complex. Microscopy and Microanalysis, 2015, 21, 1283-1284.	0.4	0
20	A mechanism of leading-edge protrusion in the absence of Arp2/3 complex. Molecular Biology of the Cell, 2015, 26, 901-912.	2.1	43
21	Accurate membrane tracing in three-dimensional reconstructions from electron cryotomography data. Ultramicroscopy, 2015, 155, 20-26.	1.9	12
22	Cellular chirality arising from the self-organization of the actin cytoskeleton. Nature Cell Biology, 2015, 17, 445-457.	10.3	350
23	Orchestration of ErbB3 signaling through heterointeractions and homointeractions. Molecular Biology of the Cell, 2015, 26, 4109-4123.	2.1	22
24	Validation methods for low-resolution fitting of atomic structures to electron microscopy data. Archives of Biochemistry and Biophysics, 2015, 581, 49-53.	3.0	6
25	Efficient Extraction of Macromolecular Complexes from Electron Tomograms Based on Reduced Representation Templates. Lecture Notes in Computer Science, 2015, 9256, 423-431.	1.3	11
26	The IRE1Î±/XBP1s Pathway Is Essential for the Glucose Response and Protection of Î² Cells. PLoS Biology, 2015, 13, e1002277.	5.6	130
27	Three-dimensional reconstructions of actin filaments capped by Arp2/3 complex. European Journal of Cell Biology, 2014, 93, 179-183.	3.6	8
28	The minimal cadherin-catenin complex binds to actin filaments under force. Science, 2014, 346, 1254211.	12.6	532
29	Holoenzyme structures of endothelial nitric oxide synthase â€“ An allosteric role for calmodulin in pivoting the FMN domain for electron transfer. Journal of Structural Biology, 2014, 188, 46-54.	2.8	32
30	Quantitative Correlative Light and Electron Microscopies; Targeting the Host Actin Cytoskeleton. Microscopy and Microanalysis, 2014, 20, 1216-1217.	0.4	1
31	The Joys and Perils of Flexible Fitting. Advances in Experimental Medicine and Biology, 2014, 805, 137-155.	1.6	10
32	The architectural relationship of components controlling mast cell endocytosis. Journal of Cell Science, 2013, 126, 4913-25.	2.0	18
33	Probabilistic determination of probe locations from distance data. Journal of Structural Biology, 2013, 184, 75-82.	2.8	2
34	Structural studies on full-length talin1 reveal a compact auto-inhibited dimer: Implications for talin activation. Journal of Structural Biology, 2013, 184, 21-32.	2.8	100
35	Three-dimensional reconstructions of Arp2/3 complex with bound nucleation promoting factors. EMBO Journal, 2012, 31, 236-247.	7.8	67
36	The C-terminal tail domain of metavinculin, vinculinâ€™s splice variant, severs actin filaments. Journal of Cell Biology, 2012, 197, 585-593.	5.2	22

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37	Toxofilin upregulates the host cortical actin cytoskeleton dynamics facilitating Toxoplasma invasion. Journal of Cell Science, 2012, 125, 4333-42.	2.0	64
38	Key Structural Features of the Actin Filament Arp2/3 Complex Branch Junction Revealed by Molecular Simulation. Journal of Molecular Biology, 2012, 416, 148-161.	4.2	29
39	Electron tomographic analysis of synaptic ultrastructure. Journal of Comparative Neurology, 2012, 520, 2697-2711.	1.6	77
40	Putting structure into context: fitting of atomic models into electron microscopic and electron tomographic reconstructions. Current Opinion in Cell Biology, 2012, 24, 141-147.	5.4	12
41	Correlative lightâ€“electron microscopy. Advances in Protein Chemistry and Structural Biology, 2011, 82, 91-99.	2.3	16
42	Methods for Segmentation and Interpretation of Electron Tomographic Reconstructions. Methods in Enzymology, 2010, 483, 31-46.	1.0	48
43	Confidence intervals for fitting of atomic models into low-resolution densities. Acta Crystallographica Section D: Biological Crystallography, 2009, 65, 679-689.	2.5	39
44	Three-dimensional Architecture of Hair-bundle Linkages Revealed by Electron-microscopic Tomography. JARO - Journal of the Association for Research in Otolaryngology, 2008, 9, 215-224.	1.8	24
45	The structure of the C-terminal actin-binding domain of talin. EMBO Journal, 2008, 27, 458-469.	7.8	159
46	Segmentation of electron tomographic data sets using fuzzy set theory principles. Journal of Structural Biology, 2008, 162, 368-379.	2.8	38
47	The structural basis of actin filament branching by the Arp2/3 complex. Journal of Cell Biology, 2008, 180, 887-895.	5.2	270
48	Effect of Calcium on Calmodulin Bound to the IQ Motifs of Myosin V. Journal of Biological Chemistry, 2007, 282, 23316-23325.	3.4	43
49	Efficient automatic noise reduction of electron tomographic reconstructions based on iterative median filtering. Journal of Structural Biology, 2007, 158, 196-204.	2.8	62
50	Density-based score for selecting near-native atomic models of unknown structures. Journal of Structural Biology, 2007, 158, 188-195.	2.8	7
51	Evidence for an Interaction between the SH3 Domain and the N-terminal Extension of the Essential Light Chain in Class II Myosins. Journal of Molecular Biology, 2007, 371, 902-913.	4.2	56
52	Reconstituted NALP1 Inflammasome Reveals Two-Step Mechanism of Caspase-1 Activation. Molecular Cell, 2007, 25, 713-724.	9.7	610
53	The R403Q Myosin Mutation Implicated in Familial Hypertrophic Cardiomyopathy Causes Disorder at the Actomyosin Interface. PLoS ONE, 2007, 2, e1123.	2.5	21
54	Three-Dimensional Structure of Vinculin Bound to Actin Filaments. Molecular Cell, 2006, 21, 271-281.	9.7	128

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55	The Structural Basis of Myosin V Processive Movement as Revealed by Electron Cryomicroscopy. Molecular Cell, 2005, 19, 595-605.	9.7	92
56	Direct continuities between cisternae at different levels of the Golgi complex in glucose-stimulated mouse islet beta cells. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 5565-5570.	7.1	172
57	Automatic particle selection: results of a comparative study. Journal of Structural Biology, 2004, 145, 3-14.	2.8	129
58	An approach to automated particle picking from electron micrographs based on reduced representation templates. Journal of Structural Biology, 2004, 145, 152-156.	2.8	27
59	Docking of Atomic Models into Reconstructions from Electron Microscopy. Methods in Enzymology, 2003, 374, 204-225.	1.0	55
60	Myosin isoforms show unique conformations in the actin-bound state. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 3227-3232.	7.1	44
61	Electron microscopy. Methods of Biochemical Analysis, 2003, 44, 115-33.	0.2	0
62	A novel three-dimensional variant of the watershed transform for segmentation of electron density maps. Journal of Structural Biology, 2002, 138, 123-129.	2.8	163
63	An Atomic Model of Actin Filaments Cross-Linked by Fimbrin and Its Implications for Bundle Assembly and Function. Journal of Cell Biology, 2001, 153, 947-956.	5.2	150
64	Evidence for cleft closure in actomyosin upon ADP release. Nature Structural Biology, 2000, 7, 1147-1155.	9.7	137
65	Actomyosin: law and order in motility. Current Opinion in Cell Biology, 2000, 12, 26-34.	5.4	37
66	Quantitative Fitting of Atomic Models into Observed Densities Derived by Electron Microscopy. Journal of Structural Biology, 1999, 125, 176-184.	2.8	202
67	An atomic model of fimbrin binding to F-actin and its implications for filament crosslinking and regulation. Nature Structural Biology, 1998, 5, 787-792.	9.7	124
68	Electron microscopy and three-dimensional single-particle analysis as tools for understanding the structural basis of mechanobiology. , 0, , 15-31.		0