Harald Janovjak

List of Publications by Year in descending order

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71 papers	3,738 citations	172457 29 h-index	128289 60 g-index
80 all docs	80 docs citations	80 times ranked	4568 citing authors

#	Article	IF	Citations
1	Processing of gene expression data generated by quantitative real-time RT-PCR. BioTechniques, 2002, 32, 1372-4, 1376, 1378-9.	1.8	964
2	Spatioâ€temporally precise activation of engineered receptor tyrosine kinases by light. EMBO Journal, 2014, 33, 1713-1726.	7.8	226
3	Optical control of metabotropic glutamate receptors. Nature Neuroscience, 2013, 16, 507-516.	14.8	192
4	LTP Induction Boosts Glutamate Spillover by Driving Withdrawal of Perisynaptic Astroglia. Neuron, 2020, 108, 919-936.e11.	8.1	159
5	Observing structure, function and assembly of single proteins by AFM. Progress in Biophysics and Molecular Biology, 2002, 79, 1-43.	2.9	155
6	Deciphering Molecular Interactions of Native Membrane Proteins by Single-Molecule Force Spectroscopy. Annual Review of Biophysics and Biomolecular Structure, 2007, 36, 233-260.	18.3	124
7	A light-gated, potassium-selective glutamate receptor for the optical inhibition of neuronal firing. Nature Neuroscience, 2010, 13, 1027-1032.	14.8	124
8	Unfolding pathways of native bacteriorhodopsin depend on temperature. EMBO Journal, 2003, 22, 5220-5229.	7.8	111
9	Hydrodynamic effects in fast AFM single-molecule force measurements. European Biophysics Journal, 2005, 34, 91-96.	2.2	111
10	Optogenetic Control of Nodal Signaling Reveals a Temporal Pattern of Nodal Signaling Regulating Cell Fate Specification during Gastrulation. Cell Reports, 2016, 16, 866-877.	6.4	101
11	Controlled Unfolding and Refolding of a Single Sodium-proton Antiporter using Atomic Force Microscopy. Journal of Molecular Biology, 2004, 340, 1143-1152.	4.2	99
12	Bacteriorhodopsin Folds into the Membrane against an External Force. Journal of Molecular Biology, 2006, 357, 644-654.	4.2	93
13	Greenâ€Lightâ€Induced Inactivation of Receptor Signaling Using Cobalaminâ€Binding Domains. Angewandte Chemie - International Edition, 2017, 56, 4608-4611.	13.8	85
14	Probing the Energy Landscape of the Membrane Protein Bacteriorhodopsin. Structure, 2004, 12, 871-879.	3.3	80
15	A Phytochrome Sensory Domain Permits Receptor Activation by Red Light. Angewandte Chemie - International Edition, 2016, 55, 6339-6342.	13.8	72
16	Pharmacology of ionotropic glutamate receptors: A structural perspective. Bioorganic and Medicinal Chemistry, 2010, 18, 7759-7772.	3.0	70
17	Molecular Force Modulation Spectroscopy Revealing the Dynamic Response of Single Bacteriorhodopsins. Biophysical Journal, 2005, 88, 1423-1431.	0.5	69
18	Construction of a robust and sensitive arginine biosensor through ancestral protein reconstruction. Protein Science, 2015, 24, 1412-1422.	7.6	60

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19	Monitoring hippocampal glycine with the computationally designed optical sensor GlyFS. Nature Chemical Biology, 2018, 14, 861-869.	8.0	60
20	Transmembrane Helices Have Rough Energy Surfaces. Journal of the American Chemical Society, 2007, 129, 246-247.	13.7	50
21	Observing Folding Pathways and Kinetics of a Single Sodium-proton Antiporter from Escherichia coli. Journal of Molecular Biology, 2006, 355, 2-8.	4.2	48
22	Quantification of riboflavin, flavin mononucleotide, and flavin adenine dinucleotide in mammalian model cells by CE with LEDâ€induced fluorescence detection. Electrophoresis, 2015, 36, 518-525.	2.4	47
23	Optical functionalization of human Class A orphan G-protein-coupled receptors. Nature Communications, 2018, 9, 1950.	12.8	46
24	Free Energy of Membrane Protein Unfolding Derived from Single-Molecule Force Measurements. Biophysical Journal, 2007, 93, 930-937.	0.5	45
25	From Valleys to Ridges: Exploring the Dynamic Energy Landscape of Single Membrane Proteins. ChemPhysChem, 2008, 9, 954-966.	2.1	43
26	Light-assisted small-molecule screening against protein kinases. Nature Chemical Biology, 2015, 11, 952-954.	8.0	42
27	Imaging and detecting molecular interactions of single transmembrane proteins. Neurobiology of Aging, 2006, 27, 546-561.	3.1	38
28	Automated alignment and pattern recognition of single-molecule force spectroscopy data. Journal of Microscopy, 2005, 218, 125-132.	1.8	33
29	Fully automated single-molecule force spectroscopy for screening applications. Nanotechnology, 2008, 19, 384020.	2.6	32
30	Light-activated Frizzled7 reveals a permissive role of non-canonical wnt signaling in mesendoderm cell migration. ELife, 2019, 8, .	6.0	32
31	A modern ionotropic glutamate receptor with a K+ selectivity signature sequence. Nature Communications, 2011, 2, 232.	12.8	31
32	Light-activated chimeric GPCRs: limitations and opportunities. Current Opinion in Structural Biology, 2019, 57, 196-203.	5.7	28
33	Pulling single bacteriorhodopsin out of a membrane: Comparison of simulation and experiment. Biochimica Et Biophysica Acta - Biomembranes, 2006, 1758, 537-544.	2.6	24
34	Direct measurement of single-molecule visco-elasticity in atomic force microscope force-extension experiments. European Biophysics Journal, 2006, 35, 287-292.	2.2	24
35	Optogenetic methods in drug screening: technologies and applications. Current Opinion in Biotechnology, 2017, 48, 8-14.	6.6	22
36	A Light-Oxygen-Voltage Receptor Integrates Light and Temperature. Journal of Molecular Biology, 2021, 433, 167107.	4.2	20

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37	Engineering Strategy and Vector Library for the Rapid Generation of Modular Light-Controlled Proteinâ€“Protein Interactions. Journal of Molecular Biology, 2019, 431, 3046-3055.	4.2	19
38	Optogenetic control of excitatory post-synaptic differentiation through neuroligin-1 tyrosine phosphorylation. ELife, 2020, 9, .	6.0	15
39	Flipping the Photoswitch: Ion Channels Under Light Control. Advances in Experimental Medicine and Biology, 2015, 869, 101-117.	1.6	12
40	Periodic Forces Trigger a Complex Mechanical Response in Ubiquitin. Journal of Molecular Biology, 2009, 390, 443-456.	4.2	11
41	Rangefinder: A Semisynthetic FRET Sensor Design Algorithm. ACS Sensors, 2016, 1, 1286-1290.	7.8	11
42	Optogenetic delivery of trophic signals in a genetic model of Parkinsonâ€™s disease. PLoS Genetics, 2021, 17, e1009479.	3.5	11
43	Digital force-feedback for protein unfolding experiments using atomic force microscopy. Nanotechnology, 2007, 18, 044022.	2.6	10
44	Ancestral Protein Reconstruction and Circular Permutation for Improving the Stability and Dynamic Range of FRET Sensors. Methods in Molecular Biology, 2017, 1596, 71-87.	0.9	9
45	Microbial methionine transporters and biotechnological applications. Applied Microbiology and Biotechnology, 2021, 105, 3919-3929.	3.6	9
46	Structure-guided optimization of light-activated chimeric G-protein-coupled receptors. Structure, 2022, 30, 1075-1087.e4.	3.3	9
47	A Rationally and Computationally Designed Fluorescent Biosensor for <scp>d</scp>-Serine. ACS Sensors, 2021, 6, 4193-4205.	7.8	8
48	Eine Phytochromâ€SensordomÃne ermÃ¶glicht eine Rezeptoraktivierung durch rotes Licht. Angewandte Chemie, 2016, 128, 6447-6450.	2.0	7
49	Complex Stability of Single Proteins Explored by Forced Unfolding Experiments. Biophysical Journal, 2005, 88, L37-L39.	0.5	5
50	The optogenetic promise for oncology: Episode I. Molecular and Cellular Oncology, 2014, 1, e964045.	0.7	5
51	GrÃ¼nlichtâ€induzierte Rezeptorinaktivierung durch Cobalaminâ€bindende DomÃnen. Angewandte Chemie, 2017, 129, 4679-4682.	2.0	5
52	Acute and chronic effects of a light-activated FGF receptor in keratinocytes in vitro and in mice. Life Science Alliance, 2021, 4, e202101100.	2.8	5
53	Formation of Kiss1R/GPER Heterocomplexes Negatively Regulates Kiss1R-mediated Signalling through Limiting Receptor Cell Surface Expression. Journal of Molecular Biology, 2021, 433, 166843.	4.2	4
54	Design and Application of Light-Regulated Receptor Tyrosine Kinases. Methods in Molecular Biology, 2020, 2173, 233-246.	0.9	4

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55	Optical Control of Ligand-Gated Ion Channels. Methods in Molecular Biology, 2013, 998, 417-435.	0.9	3
56	Light-activated receptor tyrosine kinases: Designs and applications. Current Opinion in Pharmacology, 2022, 63, 102197.	3.5	3
57	Method for Developing Optical Sensors Using a Synthetic Dye-Fluorescent Protein FRET Pair and Computational Modeling and Assessment. Methods in Molecular Biology, 2017, 1596, 89-99.	0.9	2
58	Folding, Structure and Function of Biological Nanomachines Examined by AFM. AIP Conference Proceedings, 2003, , .	0.4	1
59	Light at the End of the Protein: Crystal Structure of a C-Terminal Light-Sensing Domain. Structure, 2016, 24, 213-215.	3.3	1
60	Isolation of synaptic vesicles from genetically engineered cultured neurons. Journal of Neuroscience Methods, 2019, 312, 114-121.	2.5	1
61	All-Optical Miniaturized Co-culture Assay of Voltage-Gated Ca2+ Channels. Methods in Molecular Biology, 2020, 2173, 247-260.	0.9	1
62	Optogenetic neuroregeneration. Neural Regeneration Research, 2022, 17, 1468.	3.0	1
63	Cellular dynamics observed at sub-nanometer resolution using atomic force microscopy. Microscopy and Microanalysis, 2002, 8, 892-893.	0.4	0
64	The Anisotropic Response of Ubiquitin Unfolded by Periodic Forces. Biophysical Journal, 2009, 96, 217a-218a.	0.5	0
65	Design Of A Potassium Selective, Light-gated Glutamate Receptor. Biophysical Journal, 2009, 96, 489a.	0.5	0
66	A Light-Gated, Potassium-Selective Glutamate Receptor for the Optical Inhibition of Neuronal Firing. Biophysical Journal, 2010, 98, 223a.	0.5	0
67	Design and Application of a Light-Activated Metabotropic Glutamate Receptor for Optical Control of Intracellular Signaling Pathways. Biophysical Journal, 2011, 100, 177a.	0.5	0
68	Optical Control of Metabotropic Glutamate Receptors for Probing of G Protein Signaling and Receptor Activation Mechanism. Biophysical Journal, 2012, 102, 517a.	0.5	0
69	P3.03-006 Optical Control of Growth Factor Receptors to Advance Signal Transduction Research and Drug Screening. Journal of Thoracic Oncology, 2017, 12, S1346-S1347.	1.1	0
70	Editorial overview: Synthetic sensors and signals â€" new tools for a new trade. Current Opinion in Structural Biology, 2019, 57, iii-v.	5.7	0
71	Single-Molecule Microscopy and Force Spectroscopy of Membrane Proteins. Springer Series in Biophysics, 2008, , 279-311.	0.4	0