

Arnd Pralle

List of Publications by Year in descending order

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Version: 2024-02-01

64
papers

5,654
citations

279798

23
h-index

233421

45
g-index

67
all docs

67
docs citations

67
times ranked

7730
citing authors

#	ARTICLE	IF	CITATIONS
1	Sphingolipidâ€“Cholesterol Rafts Diffuse as Small Entities in the Plasma Membrane of Mammalian Cells. <i>Journal of Cell Biology</i> , 2000, 148, 997-1008.	5.2	921
2	A Selective Turn-On Fluorescent Sensor for Imaging Copper in Living Cells. <i>Journal of the American Chemical Society</i> , 2006, 128, 10-11.	13.7	748
3	Remote control of ion channels and neurons through magnetic-field heating of nanoparticles. <i>Nature Nanotechnology</i> , 2010, 5, 602-606.	31.5	623
4	A Selective, Cell-Permeable Optical Probe for Hydrogen Peroxide in Living Cells. <i>Journal of the American Chemical Society</i> , 2004, 126, 15392-15393.	13.7	594
5	Boronate-Based Fluorescent Probes for Imaging Cellular Hydrogen Peroxide. <i>Journal of the American Chemical Society</i> , 2005, 127, 16652-16659.	13.7	537
6	Analysis of a RanGTP-regulated gradient in mitotic somatic cells. <i>Nature</i> , 2006, 440, 697-701.	27.8	339
7	Three-dimensional high-resolution particle tracking for optical tweezers by forward scattered light. <i>Microscopy Research and Technique</i> , 1999, 44, 378-386.	2.2	298
8	Photonic force microscope calibration by thermal noise analysis. <i>Applied Physics A: Materials Science and Processing</i> , 1998, 66, S75-S78.	2.3	209
9	Photonic Force Microscope Based on Optical Tweezers and Two-Photon Excitation for Biological Applications. <i>Journal of Structural Biology</i> , 1997, 119, 202-211.	2.8	153
10	The Orientation and Molecular Movement of a K ⁺ Channel Voltage-Sensing Domain. <i>Neuron</i> , 2003, 40, 515-525.	8.1	119
11	Magnetothermal genetic deep brain stimulation of motor behaviors in awake, freely moving mice. <i>ELife</i> , 2017, 6, .	6.0	115
12	A fluorescent probe designed for studying protein conformational change. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 965-970.	7.1	110
13	ATP-dependent Membrane Assembly of F-Actin Facilitates Membrane Fusion. <i>Molecular Biology of the Cell</i> , 2001, 12, 155-170.	2.1	106
14	Stable, highâ€“affinity streptavidin monomer for protein labeling and monovalent biotin detection. <i>Biotechnology and Bioengineering</i> , 2013, 110, 57-67.	3.3	104
15	Local viscosity probed by photonic force microscopy. <i>Applied Physics A: Materials Science and Processing</i> , 1998, 66, S71-S73.	2.3	102
16	Model Driven Optimization of Magnetic Anisotropy of Exchange-Coupled Coreâ€“Shell Ferrite Nanoparticles for Maximal Hysteretic Loss. <i>Chemistry of Materials</i> , 2015, 27, 7380-7387.	6.7	93
17	Compartmentalization of the Cell Membrane. <i>Journal of Molecular Biology</i> , 2016, 428, 4739-4748.	4.2	66
18	Engineered Streptavidin Monomer and Dimer with Improved Stability and Function. <i>Biochemistry</i> , 2011, 50, 8682-8691.	2.5	57

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19	Magnetothermal nanoparticle technology alleviates parkinsonian-like symptoms in mice. <i>Nature Communications</i> , 2021, 12, 5569.	12.8	44
20	Outstanding heat loss <i>via</i> nano-octahedra above 20 nm in size: from wustite-rich nanoparticles to magnetite single-crystals. <i>Nanoscale</i> , 2019, 11, 16635-16649.	5.6	38
21	Effect of Receptor Dimerization on Membrane Lipid Raft Structure Continuously Quantified on Single Cells by Camera Based Fluorescence Correlation Spectroscopy. <i>PLoS ONE</i> , 2015, 10, e0121777.	2.5	32
22	Random insertion of split-cans of the fluorescent protein venus into Shaker channels yields voltage sensitive probes with improved membrane localization in mammalian cells. <i>Journal of Neuroscience Methods</i> , 2011, 199, 1-9.	2.5	30
23	A scanning force microscope for simultaneous force and patch-clamp measurements on living cell tissues. <i>Review of Scientific Instruments</i> , 1997, 68, 2583-2590.	1.3	27
24	Transient Magnetothermal Neuronal Silencing Using the Chloride Channel Anoctamin 1 (TMEM16A). <i>Frontiers in Neuroscience</i> , 2018, 12, 560.	2.8	24
25	Molecular and cellular mechanisms for differential effects of chronic social isolation stress in males and females. <i>Molecular Psychiatry</i> , 2022, 27, 3056-3068.	7.9	24
26	A role for the thermal environment in defining co-stimulation requirements for CD4+ T cell activation. <i>Cell Cycle</i> , 2015, 14, 2340-2354.	2.6	23
27	Photonic Force Microscopy: A New Tool Providing New Methods to Study Membranes at the Molecular Level. <i>Single Molecules</i> , 2000, 1, 129-133.	0.9	21
28	Determination and Correction of Position Detection Nonlinearity in Single Particle Tracking and Three-Dimensional Scanning Probe Microscopy. <i>Microscopy and Microanalysis</i> , 2004, 10, 425-434.	0.4	20
29	Monodisperse magnetofluorescent nanoplatforms for local heating and temperature sensing. <i>Nanoscale</i> , 2014, 6, 13463-13469.	5.6	17
30	Cellular Membranes Studied by Photonic Force Microscopy. <i>Methods in Cell Biology</i> , 2002, 68, 193-212.	1.1	10
31	Quantifying spatial and temporal variations of the cell membrane ultra-structure by bimFCS. <i>Methods</i> , 2018, 140-141, 151-160.	3.8	10
32	Multilayered inorganic-organic microdisks as ideal carriers for high magnetothermal actuation: assembling ferrimagnetic nanoparticles devoid of dipolar interactions. <i>Nanoscale</i> , 2018, 10, 21879-21892.	5.6	7
33	Membrane nanodomains homeostasis during propofol anesthesia as function of dosage and temperature. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2021, 1863, 183511.	2.6	6
34	Chapter 21 Quantitative Fluorescence Lifetime Imaging in Cells as a Tool to Design Computational Models of Regulated Reaction Networks. <i>Methods in Cell Biology</i> , 2008, 89, 541-568.	1.1	4
35	Note: Three-dimensional linearization of optical trap position detection for precise high speed diffusion measurements. <i>Review of Scientific Instruments</i> , 2014, 85, 076104.	1.3	4
36	Modulation and dynamics of cell membrane heterogeneities. <i>Chemistry and Physics of Lipids</i> , 2020, 233, 105006.	3.2	4

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37	Remote modulation of neuronal cells in the brain. Nature Materials, 2021, 20, 912-913.	27.5	4
38	Transient Effect of Calcium Influx on PIP2 Clusters and Cholesterol-Stabilized Nano-Domains in the Inner Plasma Membrane Leaflet of Intact Cells. Biophysical Journal, 2014, 106, 82a.	0.5	2
39	bim-FCS Analysis of Membrane Protein Diffusion Reveals Dynamics of Membrane Cytoskeleton and Lipid Domains in Intact Cells. Biophysical Journal, 2012, 102, 297a.	0.5	1
40	Influence of Calcium Concentration on Lipid Domains in the Inner and Outer Leaflets of the Plasma Membrane. Biophysical Journal, 2013, 104, 587a.	0.5	1
41	Membrane Cytoskeletal Changes during In-Situ to Invasive Progression of Breast Cancer Cells Observed by Multi-Scale Diffusion Analysis of Transmembrane Proteins. Biophysical Journal, 2015, 108, 79a-80a.	0.5	1
42	Transient Effect of Calcium Influx on PIP2 Clusters and Cholesterol-Stabilized Nano-Domains in the Inner Plasma Membrane Leaflet of Intact Cells. Biophysical Journal, 2015, 108, 79a.	0.5	1
43	The Effect of Propofol on Plasma Membrane Ultrastructure in the Intact Cells. Biophysical Journal, 2017, 112, 320a.	0.5	1
44	Nanoparticle Preparation for Magnetothermal Genetic Stimulation in Cell Culture and in the Brain of Live Rodents. Neuromethods, 2018, , 39-51.	0.3	1
45	Photonic Force Microscopy: A New Tool Providing New Methods to Study Membranes at the Molecular Level. Single Molecules, 2000, 1, 129-133.	0.9	1
46	Remote Steering of C. Elegans Using Nanoparticle Heating. Biophysical Journal, 2009, 96, 6a.	0.5	0
47	Real-time 3D Tracking of Structural Transitions in Adenylate Kinase by Thermal Noise Imaging. Biophysical Journal, 2009, 96, 377a-378a.	0.5	0
48	Random Insertion of Split-can Venus into Kv1.4 Yields Voltage Sensitive Fluorescent Probes. Biophysical Journal, 2009, 96, 403a.	0.5	0
49	Nano-Scale, Microsecond Diffusion Imaging of Membrane Protein - lipid Raft Interaction in the Plasma Membrane. Biophysical Journal, 2011, 100, 254a.	0.5	0
50	Monitoring Association of Membrane Proteins with Micro-Domains and Cytoskeleton in Live Cells During Signaling and Perturbation. Biophysical Journal, 2011, 100, 252a-253a.	0.5	0
51	Local Cell Membrane Stiffness and Viscosity Mapped by Thermal Noise Imaging. Biophysical Journal, 2012, 102, 297a.	0.5	0
52	The Immunomodulator Enterotoxin Influences BCR Signaling by Stabilizing Lipid Domains. Biophysical Journal, 2013, 104, 246a.	0.5	0
53	Mc Model of Lipid Raft Protein Diffusion Matched to Live Cell Measurements with Controlled Chemical Perturbation Experiments. Biophysical Journal, 2013, 104, 427a.	0.5	0
54	Nano-Domains of Cell Membrane Stiffness, Proteins Diffusion and Concentration Characterized by Thermal Noise Imaging. Biophysical Journal, 2013, 104, 246a.	0.5	0

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55	Influence of Calcium on Lipid Domain Formation in Agarose Supported Lipid Bilayers. Biophysical Journal, 2013, 104, 587a.	0.5	0
56	Optimizing of Local Nano-Particle Heating for Thermo-Magnetic Stimulation of Cells. Biophysical Journal, 2013, 104, 678a-679a.	0.5	0
57	Local Optical Temperature Measurements around Magnetosomes within Single Bacteria to Study Size and Geometry Effects on Heating. Biophysical Journal, 2014, 106, 382a.	0.5	0
58	Long-Term Live Observation of Membrane Protein Interaction with Lipid Nanodomains Show Dependence on Cell Cycle and Time After Transfection. Biophysical Journal, 2014, 106, 511a.	0.5	0
59	Local Temperature Evolution during Nanoparticle Hyperthermia Probed by Fluorescence Thermometry. Biophysical Journal, 2015, 108, 208a.	0.5	0
60	Live Quantification of Changes to Membrane Cytoskeleton due to Restricted Access to Laminin or Substrate Stiffness. Biophysical Journal, 2016, 110, 94a.	0.5	0
61	Transient Effect of Calcium Influx on PIP2 Clusters in the Inner Plasma Membrane Leaflet of Intact Cells. Biophysical Journal, 2016, 110, 204a.	0.5	0
62	Calcium Influx through Piezo1 Channels Transiently Clusters PI(4,5)P2 and Recruits Actin Polymerization. Biophysical Journal, 2020, 118, 397a.	0.5	0
63	Biophysics of Thermal and Mechanical Ultrasonic Neuromodulation. Biophysical Journal, 2021, 120, 237a.	0.5	0
64	Thermal Noise Imaging of Cell Membrane Stiffness and Tracking of Membrane Protein Motion. , 2015, , .		0