

Pavel Novak

List of Publications by Year in descending order

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Version: 2024-02-01

54
papers

3,640
citations

201674

27
h-index

254184

43
g-index

60
all docs

60
docs citations

60
times ranked

3945
citing authors

#	ARTICLE	IF	CITATIONS
1	Release of insulin granules by simultaneous, high-speed correlative SICM-FCM. <i>Journal of Microscopy</i> , 2021, 282, 21-29.	1.8	8
2	Mapping mechanical properties of living cells at nanoscale using intrinsic nanopipette-sample force interactions. <i>Nanoscale</i> , 2021, 13, 6558-6568.	5.6	33
3	Noncontact Nanoscale Imaging of Cells. <i>Annual Review of Analytical Chemistry</i> , 2021, 14, 347-361.	5.4	2
4	Electrochemical detection and imaging of reactive oxygen species in single living cells. <i>Microscopy and Microanalysis</i> , 2021, 27, 1720-1721.	0.4	0
5	SCANNING ION-CONDUCTANCE MICROSCOPY METHODS FOR STUDYING LOCAL MECHANICAL PROPERTIES OF LIVING CELLS. <i>Microscopy and Microanalysis</i> , 2021, 27, 496-498.	0.4	0
6	CORRELATIVE QUANTITATIVE NANOMECHANICAL MAPPING AND CONFOCAL IMAGING OF LIVING CELLS BY SCANNING ION-CONDUCTANCE MICROSCOPY. <i>Microscopy and Microanalysis</i> , 2021, 27, 570-571.	0.4	0
7	Nanoscale Electrophysiology Using Scanning Ion Conductance Microscopy. <i>Bioanalytical Reviews</i> , 2021, , 1.	0.2	0
8	Short-term angiotensin II treatment regulates cardiac nanomechanics via microtubule modifications. <i>Nanoscale</i> , 2020, 12, 16315-16329.	5.6	15
9	Rapid formation of human immunodeficiency virus-like particles. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 21637-21646.	7.1	28
10	Scanning Ion Conductance Microscopy (SICM) for Low-stress Directly Examining of Cellular Mechanics. <i>Microscopy and Microanalysis</i> , 2020, 26, 1968-1970.	0.4	2
11	Scanning Ion Conductance Microscopy for Single Cell Analysis. <i>Microscopy and Microanalysis</i> , 2020, 26, 2496-2497.	0.4	0
12	Microtubules regulate cardiomyocyte transversal Young's modulus. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 2764-2766.	7.1	33
13	In Vitro and In Vivo Electrochemical Measurement of Reactive Oxygen Species After Treatment with Anticancer Drugs. <i>Analytical Chemistry</i> , 2020, 92, 8010-8014.	6.5	58
14	High-resolution label-free 3D mapping of extracellular pH of single living cells. <i>Nature Communications</i> , 2019, 10, 5610.	12.8	62
15	Nanoscale Mapping Reveals Functional Differences in Ion Channels Populating the Membrane of Primary Cilia. <i>Cellular Physiology and Biochemistry</i> , 2019, 54, 15-26.	1.6	5
16	Nanoscale Imaging of Primary Cilia with Scanning Ion Conductance Microscopy. <i>Analytical Chemistry</i> , 2018, 90, 2891-2895.	6.5	32
17	Visualising nanoscale restructuring of a cellular membrane triggered by polyelectrolyte microcapsules. <i>Nanoscale</i> , 2018, 10, 16902-16910.	5.6	12
18	Stem Cell Expansion and Fate Decision on Liquid Substrates Are Regulated by Self-Assembled Nanosheets. <i>ACS Nano</i> , 2018, 12, 9206-9213.	14.6	44

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19	Kv1.1 channelopathy abolishes presynaptic spike width modulation by subthreshold somatic depolarization. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 2395-2400.	7.1	31
20	Chondrocyte expansion is associated with loss of primary cilia and disrupted hedgehog signalling. , 2017, 34, 128-141.		29
21	Adaptive Hopping Probe Ion Conductance Microscopy of Live Cells at \sim 45-10 NM Resolution. <i>Biophysical Journal</i> , 2016, 110, 517a.	0.5	0
22	Modulation of axonal signalling in type 1 episodic ataxia. <i>Lancet, The</i> , 2016, 387, S104.	13.7	0
23	Low Stress Ion Conductance Microscopy of Sub-Cellular Stiffness. <i>Soft Matter</i> , 2016, 12, 7953-7958.	2.7	41
24	Microtubule-Dependent Mitochondria Alignment Regulates Calcium Release in Response to Nanomechanical Stimulus in Heart Myocytes. <i>Cell Reports</i> , 2016, 14, 140-151.	6.4	55
25	Spearhead Nanometric Field-Effect Transistor Sensors for Single-Cell Analysis. <i>ACS Nano</i> , 2016, 10, 3214-3221.	14.6	95
26	Comparison of Atomic Force Microscopy and Scanning Ion Conductance Microscopy for Live Cell Imaging. <i>Langmuir</i> , 2015, 31, 6807-6813.	3.5	84
27	Imaging Single Nanoparticle Interactions with Human Lung Cells Using Fast Ion Conductance Microscopy. <i>Nano Letters</i> , 2014, 14, 1202-1207.	9.1	80
28	Electrochemical Nanoprobes for Single-Cell Analysis. <i>ACS Nano</i> , 2014, 8, 875-884.	14.6	195
29	Nanopipet Based Nanoprobes for Single-Cell Analysis. <i>Biophysical Journal</i> , 2014, 106, 798a-799a.	0.5	0
30	High-Speed Hopping Probe Scanning Ion Conductance Microscopy. <i>Biophysical Journal</i> , 2014, 106, 797a-798a.	0.5	0
31	Functional interaction between charged nanoparticles and cardiac tissue: a new paradigm for cardiac arrhythmia?. <i>Nanomedicine</i> , 2013, 8, 725-737.	3.3	47
32	Combined ion conductance and fluorescence confocal microscopy for biological cell membrane transport studies. <i>Journal of Optics (United Kingdom)</i> , 2013, 15, 094005.	2.2	5
33	Imaging the cell surface and its organization down to the level of single molecules. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2013, 368, 20120027.	4.0	19
34	Nanoscale-Targeted Patch-Clamp Recordings of Functional Presynaptic Ion Channels. <i>Neuron</i> , 2013, 79, 1067-1077.	8.1	103
35	Local Delivery of Molecules from a Nanopipette for Quantitative Receptor Mapping on Live Cells. <i>Analytical Chemistry</i> , 2013, 85, 9333-9342.	6.5	69
36	Super-resolution Scanning Patch Clamp Reveals Clustering of Functional Ion Channels in Adult Ventricular Myocyte. <i>Circulation Research</i> , 2013, 112, 1112-1120.	4.5	89

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37	An alternative mechanism of clathrin-coated pit closure revealed by ion conductance microscopy. <i>Journal of Cell Biology</i> , 2012, 197, 499-508.	5.2	77
38	Respiratory epithelial cytotoxicity and membrane damage (holes) caused by amine-modified nanoparticles. <i>Nanotoxicology</i> , 2012, 6, 94-108.	3.0	112
39	Topographical and electrochemical nanoscale imaging of living cells using voltage-switching mode scanning electrochemical microscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 11540-11545.	7.1	198
40	Quantitative Characterization of Local Chemical Delivery through Nanopipette. <i>Biophysical Journal</i> , 2012, 102, 313a.	0.5	1
41	Development of Voltage Switching Mode Scanning Electrochemical Microscopy for Topographical and Electrochemical Nanoscale Imaging of Living Cells. <i>ECS Meeting Abstracts</i> , 2012, , .	0.0	0
42	Realizing the biological and biomedical potential of nanoscale imaging using a pipette probe. <i>Nanomedicine</i> , 2011, 6, 565-575.	3.3	16
43	Modulation of human embryonic stem cell-derived cardiomyocyte growth: A testbed for studying human cardiac hypertrophy?. <i>Journal of Molecular and Cellular Cardiology</i> , 2011, 50, 367-376.	1.9	130
44	Multifunctional Nanoprobes for Nanoscale Chemical Imaging and Localized Chemical Delivery at Surfaces and Interfaces. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 9638-9642.	13.8	256
45	Scanning ion conductance microscopy: a convergent high-resolution technology for multi-parametric analysis of living cardiovascular cells. <i>Journal of the Royal Society Interface</i> , 2011, 8, 913-925.	3.4	61
46	Plasma membrane topography and interpretation of single-particle tracks. <i>Nature Methods</i> , 2010, 7, 170-171.	19.0	113
47	β_2 -Adrenergic Receptor Redistribution in Heart Failure Changes cAMP Compartmentation. <i>Science</i> , 2010, 327, 1653-1657.	12.6	505
48	Simultaneous Noncontact Topography and Electrochemical Imaging by SECM/SICM Featuring Ion Current Feedback Regulation. <i>Journal of the American Chemical Society</i> , 2010, 132, 10118-10126.	13.7	272
49	Nanoscale live-cell imaging using hopping probe ion conductance microscopy. <i>Nature Methods</i> , 2009, 6, 279-281.	19.0	462
50	Next Generation SICM Allows Nanoscale Imaging Of Biological Processes In Real-time. <i>Biophysical Journal</i> , 2009, 96, 374a.	0.5	0
51	Noncontact Measurement of the Local Mechanical Properties of Living Cells Using Pressure Applied via a Pipette. <i>Biophysical Journal</i> , 2008, 95, 3017-3027.	0.5	112
52	BLM Analyzer: a software tool for experiments on planar lipid bilayers. <i>BioTechniques</i> , 2007, 42, 335-341.	1.8	4
53	Q-Method for High-Resolution, Whole-Cell Patch-Clamp Impedance Measurements Using Square Wave Stimulation. <i>Annals of Biomedical Engineering</i> , 2006, 34, 1201-1212.	2.5	14
54	Estimation of passive electrical parameters of living cells using a voltage step stimulus. <i>Neurophysiology</i> , 2000, 32, 244-245.	0.3	0