Joachim Wegener

List of Publications by Year
in descending order

90 papers	5,482 citations	93792 39 h-index	90395 73 g-index
93 all docs	93 docs citations	93 times ranked	7252 citing authors

#	Article	IF	Citations
1	Innovative Platform for the Advanced Online Monitoring of Three-Dimensional Cells and Tissue Cultures. Cells, 2022, 11, 412.	1.8	3
2	Label-free impedance measurements to unravel biomolecular interactions involved in G protein-coupled receptor signaling. Methods in Cell Biology, 2022, , 221-236.	0.5	2
3	pH sensing in skin tumors: Methods to study the involvement of GPCRs, acidâ€sensing ion channels and transient receptor potential vanilloid channels. Experimental Dermatology, 2020, 29, 1055-1061.	1.4	4
4	Cytocompatibility of Mats Prepared from Different Electrospun Polymer Nanofibers. ACS Applied Bio Materials, 2020, 3, 4912-4921.	2.3	8
5	Fasudil Loaded PLGA Microspheres as Potential Intravitreal Depot Formulation for Glaucoma Therapy. Pharmaceutics, 2020, 12, 706.	2.0	21
6	Impedance analysis of adherent cells after in situ electroporation-mediated delivery of bioactive proteins, DNA and nanoparticles in ÂµL-volumes. Scientific Reports, 2020, 10, 21331.	1.6	13
7	Laser-scribed graphene (LSG) as new electrode material for impedance-based cellular assays. Sensors and Actuators B: Chemical, 2020, 321, 128443.	4.0	23
8	Stepwise Dosing Protocol for Increased Throughput in Label-Free Impedance-Based GPCR Assays. Journal of Visualized Experiments, 2020, , .	0.2	0
9	PETER-assay: Combined Impedimetric Detection of Permeability (PE) and Resistance (TER) of Barrier-Forming Cell Layers. Scientific Reports, 2020, 10, 7373.	1.6	2
10	Cells as Sensors. , 2020, , 105-127.		0
11	Using animal cells as sensors for xenobiotics: monitoring phenotypic changes by multimodal impedance assays. Current Opinion in Environmental Science and Health, 2019, 10, 30-37.	2.1	5
12	Impedance-Based Assays Along the Life Span of Adherent Mammalian Cells In Vitro: From Initial Adhesion to Cell Death. Bioanalytical Reviews, 2019, , 1.	0.1	8
13	Image-Based Monitoring of Oxygenation in Microfluidic Cell Culture. Genetic Engineering and Biotechnology News, 2019, 39, 87-89.	0.1	1
14	Increasing the throughput of label-free cell assays to study the activation of G-protein-coupled receptors by using a serial agonist exposure protocol. Integrative Biology (United Kingdom), 2019, 11, 99-108.	0.6	3
15	Zellen als Sensoren. , 2019, , 109-132.		0
16	Measuring the Permeability of Endothelial Cell Monolayers: Teaching New Tricks to an Old Dog. Biophysical Journal, 2019, 116, 1377-1379.	0.2	1
17	Oxidative Stress Increases Endogenous Complement-Dependent Inflammatory and Angiogenic Responses in Retinal Pigment Epithelial Cells Independently of Exogenous Complement Sources. Antioxidants, 2019, 8, 548.	2.2	22
18	Tracking Hyaluronan: Molecularly Imprinted Polymer Coated Carbon Dots for Cancer Cell Targeting and Imaging. ACS Applied Materials & Interfaces, 2018, 10, 3305-3313.	4.0	148

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19	Independent impedimetric analysis of two cell populations co-cultured on opposite sides of a porous support. Experimental Cell Research, 2017, 351, 121-126.	1.2	5
20	Label-free profiling of cell dynamics: A sequence of impedance-based assays to estimate tumor cell invasiveness in vitro. Experimental Cell Research, 2017, 359, 243-250.	1.2	13
21	Pitfalls in assessing microvascular endothelial barrier function: impedance-based devices versus the classic macromolecular tracer assay. Scientific Reports, 2016, 6, 23671.	1.6	86
22	Label-free analysis of GPCR-stimulation: The critical impact of cell adhesion. Pharmacological Research, 2016, 108, 65-74.	3.1	23
23	Twoâ€Photon Excitation Temperature Nanosensors Based on a Conjugated Fluorescent Polymer Doped with a Europium Probe. Advanced Optical Materials, 2016, 4, 1854-1859.	3.6	33
24	Label-free versus conventional cellular assays: Functional investigations on the human histamine H1 receptor. Pharmacological Research, 2016, 114, 13-26.	3.1	21
25	Cell-Based Microarrays for In Vitro Toxicology. Annual Review of Analytical Chemistry, 2015, 8, 335-358.	2.8	13
26	Experimental tools to monitor the dynamics of endothelial barrier function: a survey of in vitro approaches. Cell and Tissue Research, 2014, 355, 485-514.	1.5	52
27	Flavonoids, Flavonoid Metabolites, and Phenolic Acids Inhibit Oxidative Stress in the Neuronal Cell Line HT-22 Monitored by ECIS and MTT Assay: A Comparative Study. Journal of Natural Products, 2014, 77, 446-454.	1.5	38
28	Melanomaâ€derived <scp>IL</scp>â€1 converts vascular endothelium to a proinflammatory and procoagulatory phenotype via <scp>NF</scp>Î°B activation. Experimental Dermatology, 2014, 23, 670-676.	1.4	23
29	Label-free monitoring of cell-based assays: Combining impedance analysis with SPR for multiparametric cell profiling. Biosensors and Bioelectronics, 2013, 49, 63-70.	5.3	49
30	A Highly K⁺â€Selective Phenylazaâ€[18]crownâ€6â€Lariatâ€Etherâ€Based Fluoroionophore and Its Application in the Sensing of K⁺ Ions with an Optical Sensor Film and in Cells. Chemistry - A European Journal, 2013, 19, 14911-14917.	1.7	66
31	Imaging of cellular oxygen via two-photon excitation of fluorescent sensor nanoparticles. Sensors and Actuators B: Chemical, 2013, 188, 257-262.	4.0	27
32	Real-time label-free monitoring of the cellular response to osmotic stress using conventional and long-range surface plasmons. Biosensors and Bioelectronics, 2013, 40, 417-421.	5.3	32
33	A whole-cell biosensor as in vitro alternative to skin irritation tests. Biosensors and Bioelectronics, 2013, 39, 156-162.	5.3	29
34	Detection of micro- and nano-particles in animal cells by ToF-SIMS 3D analysis. Surface and Interface Analysis, 2013, 45, 315-319.	0.8	22
35	LMX1B is Essential for the Maintenance of Differentiated Podocytes in Adult Kidneys. Journal of the American Society of Nephrology: JASN, 2013, 24, 1830-1848.	3.0	60
36	Macroporous silicon chips for laterally resolved, multi-parametric analysis of epithelial barrier function. Lab on A Chip, 2012, 12, 2329.	3.1	9

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37	Monitoring passive transport of redox mediators across a confluent cell monolayer with single-cell resolution by means of scanning electrochemical microscopy. Analytical Methods, 2012, 4, 623-629.	1.3	22
38	Ultra-Small, Highly Stable, and Sensitive Dual Nanosensors for Imaging Intracellular Oxygen and pH in Cytosol. Journal of the American Chemical Society, 2012, 134, 17011-17014.	6.6	208
39	DNA â€œNanolampsâ€• â€œClickedâ€•DNA Conjugates with Photon Upconverting Nanoparticles as Highly Emissive Biomaterial. ChemPlusChem, 2012, 77, 129-134.	1.3	21
40	Self-referenced RGB colour imaging of intracellular oxygen. Chemical Science, 2011, 2, 901.	3.7	97
41	Simultaneous Imaging and Chemical Attack of a Single Living Cell within a Confluent Cell Monolayer by Means of Scanning Electrochemical Microscopy. Analytical Chemistry, 2011, 83, 169-174.	3.2	38
42	Toxicity of gold-nanoparticles: Synergistic effects of shape and surface functionalization on micromotility of epithelial cells. Nanotoxicology, 2011, 5, 254-268.	1.6	139
43	Impedance analysis of adherent cells after in situ electroporation: Non-invasive monitoring during intracellular manipulations. Biosensors and Bioelectronics, 2011, 26, 4720-4727.	5.3	56
44	Neutrophils cross the BBB primarily on transcellular pathways: An in vitro study. Brain Research, 2011, 1367, 62-76.	1.1	52
45	Highâ€Resolution Imaging of Nanostructured Si/SiO₂ Substrates and Cell Monolayers Using Scanning Electrochemical Microscopy. Electroanalysis, 2011, 23, 196-200.	1.5	14
46	The LIMâ€homeodomain transcription factor LMX1B supports the maintenance of differentiated podocytes by modulating the actin cytoskeleton. FASEB Journal, 2011, 25, 951.1.	0.2	0
47	Label-free and time-resolved measurements of cell volume changes by surface plasmon resonance (SPR) spectroscopy. Biosensors and Bioelectronics, 2010, 25, 1221-1224.	5.3	53
48	Cell Adhesion Monitoring Using Substrate-Integrated Sensors. Journal of Adhesion Science and Technology, 2010, 24, 2079-2104.	1.4	29
49	Dynamics of human cancer cell lines monitored by electrical and acoustic fluctuation analysis. Integrative Biology (United Kingdom), 2010, 2, 139.	0.6	60
50	Nanotopography follows force in TGF-Î²1 stimulated epithelium. Nanotechnology, 2010, 21, 265102.	1.3	38
51	Cell Adhesion to Ordered Pores: Consequences for Cellular Elasticity. Journal of Adhesion Science and Technology, 2010, 24, 2287-2300.	1.4	13
52	MEK5/ERK5 Signaling Modulates Endothelial Cell Migration and Focal Contact Turnover. Journal of Biological Chemistry, 2009, 284, 24972-24980.	1.6	33
53	Elasticity Mapping of Poreâ€Suspending Native Cell Membranes. Small, 2009, 5, 832-838.	5.2	25
54	Elasticity mapping of apical cell membranes. Soft Matter, 2009, 5, 3262.	1.2	14

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55	Cytotoxicity of Metal and Semiconductor Nanoparticles Indicated by Cellular Micromotility. ACS Nano, 2009, 3, 213-222.	7.3	112
56	The chemical composition of animal cells reconstructed from 2D and 3D ToF-SIMS analysis. Applied Surface Science, 2008, 255, 1249-1256.	3.1	31
57	The C-terminus of the Î³2 chain but not of the Î²3 chain of laminin-332 is indirectly but indispensably necessary for integrin-mediated cell reactions. Experimental Cell Research, 2008, 314, 489-497.	1.2	16
58	Scanning ion conductance microscopy with distance-modulated shear force control. Nanotechnology, 2007, 18, 145505.	1.3	33
59	The Chemical Composition of Animal Cells and Their Intracellular Compartments Reconstructed from 3D Mass Spectrometry. Angewandte Chemie - International Edition, 2007, 46, 5332-5335.	7.2	100
60	The impact of glia-derived extracellular matrices on the barrier function of cerebral endothelial cells: An in vitro study. Experimental Cell Research, 2007, 313, 1318-1325.	1.2	105
61	Monitoring Cell Adhesion by Piezoresonators:â€‰ Impact of Increasing Oscillation Amplitudes. Analytical Chemistry, 2007, 79, 3392-3400.	3.2	51
62	Adsorption and Fluctuations of Giant Liposomes Studied by Electrochemical Impedance Measurements. Langmuir, 2006, 22, 676-680.	1.6	15
63	Cell Motility Probed by Noise Analysis of Thickness Shear Mode Resonators. Analytical Chemistry, 2006, 78, 5184-5191.	3.2	58
64	Membrane Stiffness of Animal Cells Challenged by Osmotic Stress. Small, 2006, 2, 1016-1020.	5.2	47
65	Bradykinin shifts endothelial fluid passage from para- to transcellular routes. Pflugers Archiv European Journal of Physiology, 2006, 453, 157-165.	1.3	15
66	Junctional adhesion molecule-A participates in the formation of apico-basal polarity through different domains. Experimental Cell Research, 2006, 312, 3389-3403.	1.2	75
67	In vitro study of malaria parasite induced disruption of bloodâ€“brain barrier. Biochemical and Biophysical Research Communications, 2005, 335, 810-818.	1.0	24
68	Automated multi-well device to measure transepithelial electrical resistances under physiological conditions. BioTechniques, 2004, 37, 590-597.	0.8	86
69	Electrical wound-healing assay for cells in vitro. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 1554-1559.	3.3	385
70	Tyrosine phosphatase inhibition induces loss of bloodâ€“brain barrier integrity by matrix metalloproteinase-dependent and -independent pathways. Brain Research, 2004, 995, 184-196.	1.1	90
71	Bioelectrical impedance assay to monitor changes in cell shape during apoptosis. Biosensors and Bioelectronics, 2004, 19, 583-594.	5.3	290
72	Adhesion of liposomes: a quartz crystal microbalance study. Measurement Science and Technology, 2003, 14, 1865-1875.	1.4	37

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73	Adhesion Kinetics of Functionalized Vesicles and Mammalian Cells:Â A Comparative Studyâ€. Langmuir, 2003, 19, 1816-1823.	1.6	47
74	Real-Time Impedance Assay to Follow the Invasive Activities of Metastatic Cells in Culture. BioTechniques, 2002, 33, 842-850.	0.8	140
75	Recovery of Adherent Cells after In Situ Electroporation Monitored Electrically. BioTechniques, 2002, 33, 348-357.	0.8	65
76	The Polarity of Choroid Plexus Epithelial Cells In Vitro Is Improved in Serum-Free Medium. Journal of Neurochemistry, 2002, 71, 1141-1150.	2.1	58
77	Porcinechoroid plexus epithelial cells in culture: Regulation of barrier properties and transport processes. Microscopy Research and Technique, 2001, 52, 137-152.	1.2	71
78	The Quartz Crystal Microbalance as a Novel Means to Study Cell-Substrate Interactions In Situ. Cell Biochemistry and Biophysics, 2001, 34, 121-151.	0.9	100
79	Barrier function of porcine choroid plexus epithelial cells is modulated by cAMP-dependent pathways in vitro. Brain Research, 2000, 853, 115-124.	1.1	77
80	Electric Cellâ€“Substrate Impedance Sensing (ECIS) as a Noninvasive Means to Monitor the Kinetics of Cell Spreading to Artificial Surfaces. Experimental Cell Research, 2000, 259, 158-166.	1.2	694
81	Analysis of the Composite Response of Shear Wave Resonators to the Attachment of Mammalian Cells. Biophysical Journal, 2000, 78, 2821-2833.	0.2	155
82	Use of electrochemical impedance measurements to monitor Î²-adrenergic stimulation of bovine aortic endothelial cells. Pflugers Archiv European Journal of Physiology, 1999, 437, 925-934.	1.3	109
83	Hydrocortisone Reinforces the Bloodâ€“Brain Barrier Properties in a Serum Free Cell Culture System. Biochemical and Biophysical Research Communications, 1998, 244, 312-316.	1.0	233
84	Impedance and shear wave resonance analysis of ligandâ€“receptor interactions at functionalized surfaces and of cell monolayers. Biosensors and Bioelectronics, 1997, 12, 787-808.	5.3	62
85	Porcine choroid plexus cells in culture: expression of polarized phenotype, maintenance of barrier properties and apical secretion of CSF-components. European Journal of Cell Biology, 1997, 74, 68-78.	1.6	59
86	Impedance analysis of epithelial and endothelial cell monolayers cultured on gold surfaces. Journal of Proteomics, 1996, 32, 151-170.	2.4	119
87	Double-mode impedance analysis of epithelial cell monolayers cultured on shear wave resonators. European Biophysics Journal, 1996, 25, 93-103.	1.2	96
88	The role of non-lamellar lipid structures in the formation of tight junctions. Chemistry and Physics of Lipids, 1996, 81, 229-255.	1.5	35
89	Applications of impedance spectroscopy in biochemistry and biophysics. Acta Biochimica Polonica, 1996, 43, 339-48.	0.3	0
90	Stereoselective Synthesis of Exocyclic Trisubstituted Double Bonds. Angewandte Chemie International Edition in English, 1974, 13, 602-603.	4.4	12