

Oliver Otto

List of Publications by Year in descending order

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Version: 2024-02-01

70
papers

3,693
citations

147726

31
h-index

143943

57
g-index

82
all docs

82
docs citations

82
times ranked

4532
citing authors

#	ARTICLE	IF	CITATIONS
1	Machine learning assisted real-time deformability cytometry of CD34+ cells allows to identify patients with myelodysplastic syndromes. <i>Scientific Reports</i> , 2022, 12, 870.	1.6	11
2	Ex vivo anticoagulants affect human blood platelet biomechanics with implications for high-throughput functional mechanophenotyping. <i>Communications Biology</i> , 2022, 5, 86.	2.0	5
3	Switching in the expression pattern of actin isoforms marks the onset of contractility and distinct mechanodynamic behavior during cardiomyocyte differentiation. <i>Physiological Reports</i> , 2022, 10, e15171.	0.7	5
4	Divalent magnesium restores cytoskeletal storage lesions in cold-stored platelet concentrates. <i>Scientific Reports</i> , 2022, 12, 6229.	1.6	2
5	Interpretation of cell mechanical experiments in microfluidic systems depend on the choice of cellular shape descriptors. <i>Biomicrofluidics</i> , 2022, 16, 024109.	1.2	5
6	Reduced platelet forces underlie impaired hemostasis in mouse models of <i>MYH9</i> -related disease. <i>Science Advances</i> , 2022, 8, eabn2627.	4.7	21
7	AQP8 is a crucial H ₂ O ₂ transporter in insulin-producing RINm5F cells. <i>Redox Biology</i> , 2021, 43, 101962.	3.9	26
8	Inactivation of Cerebral Cavernous Malformation Genes Results in Accumulation of von Willebrand Factor and Redistribution of Weibel-Palade Bodies in Endothelial Cells. <i>Frontiers in Molecular Biosciences</i> , 2021, 8, 622547.	1.6	7
9	Inhibition of the NLRP3/IL-1 β axis protects against sepsis-induced cardiomyopathy. <i>Journal of Cachexia, Sarcopenia and Muscle</i> , 2021, 12, 1653-1668.	2.9	65
10	Deformability-induced lift force in spiral microchannels for cell separation. <i>Lab on A Chip</i> , 2020, 20, 614-625.	3.1	36
11	Microfluidic Fabrication of Click Chemistry-Mediated Hyaluronic Acid Microgels: A Bottom-Up Material Guide to Tailor a Microgel's Physicochemical and Mechanical Properties. <i>Polymers</i> , 2020, 12, 1760.	2.0	14
12	Tunable polymer microgel particles and their study using microscopy and real-time deformability cytometry. <i>Journal of Polymer Science</i> , 2020, 58, 2317-2326.	2.0	3
13	High-throughput cell and spheroid mechanics in virtual fluidic channels. <i>Nature Communications</i> , 2020, 11, 2190.	5.8	29
14	Label-free on chip quality assessment of cellular blood products using real-time deformability cytometry. <i>Lab on A Chip</i> , 2020, 20, 2306-2316.	3.1	16
15	Purifying stem cell-derived red blood cells: a high-throughput label-free downstream processing strategy based on microfluidic spiral inertial separation and membrane filtration. <i>Biotechnology and Bioengineering</i> , 2020, 117, 2032-2045.	1.7	13
16	A comparison of microfluidic methods for high-throughput cell deformability measurements. <i>Nature Methods</i> , 2020, 17, 587-593.	9.0	148
17	Coactosin-like 1 integrates signaling critical for shear-dependent thrombus formation in mouse platelets. <i>Haematologica</i> , 2020, 105, 1667-1676.	1.7	8
18	Cardiomyocyte mechanodynamics under conditions of actin remodelling. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2019, 374, 20190081.	1.8	18

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19	Targeting Mechanoresponsive Proteins in Pancreatic Cancer: 4-Hydroxyacetophenone Blocks Dissemination and Invasion by Activating MYH14. <i>Cancer Research</i> , 2019, 79, 4665-4678.	0.4	44
20	High-throughput single-cell rheology in complex samples by dynamic real-time deformability cytometry. <i>Nature Communications</i> , 2019, 10, 415.	5.8	88
21	Controlling distinct signaling states in cultured cancer cells provides a new platform for drug discovery. <i>FASEB Journal</i> , 2019, 33, 9235-9249.	0.2	7
22	Morpho-rheological Fingerprinting of Rod Photoreceptors Using Real-Time Deformability Cytometry. <i>Cytometry Part A: the Journal of the International Society for Analytical Cytology</i> , 2019, 95, 1145-1157.	1.1	10
23	Targeting Mechanoresponsive Proteins in Pancreatic Cancer: 4-Hydroxyacetophenone Blocks Dissemination and Invasion by Activating MYH14. <i>Biophysical Journal</i> , 2019, 116, 260a.	0.2	2
24	The relationship between metastatic potential and in vitro mechanical properties of osteosarcoma cells. <i>Molecular Biology of the Cell</i> , 2019, 30, 887-898.	0.9	39
25	Spheroid Culture of Mesenchymal Stromal Cells Results in Morphorheological Properties Appropriate for Improved Microcirculation. <i>Advanced Science</i> , 2019, 6, 1802104.	5.6	31
26	Tafazzin-dependent cardiolipin composition in C6 glioma cells correlates with changes in mitochondrial and cellular functions, and cellular proliferation. <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2019, 1864, 452-465.	1.2	9
27	Cell number in mesenchymal stem cell aggregates dictates cell stiffness and chondrogenesis. <i>Stem Cell Research and Therapy</i> , 2019, 10, 10.	2.4	42
28	Biallelic CCM3 mutations cause a clonogenic survival advantage and endothelial cell stiffening. <i>Journal of Cellular and Molecular Medicine</i> , 2019, 23, 1771-1783.	1.6	15
29	Real-time fluorescence and deformability cytometry. <i>Nature Methods</i> , 2018, 15, 355-358.	9.0	127
30	Real-Time Deformability Cytometry: Label-Free Functional Characterization of Cells. <i>Methods in Molecular Biology</i> , 2018, 1678, 347-369.	0.4	40
31	Impact of poloxamer 188 (Pluronic F-68) additive on cell mechanical properties, quantification by real-time deformability cytometry. <i>Biomicrofluidics</i> , 2018, 12, 044118.	1.2	11
32	Statistics for real-time deformability cytometry: Clustering, dimensionality reduction, and significance testing. <i>Biomicrofluidics</i> , 2018, 12, 042214.	1.2	39
33	Detection of human disease conditions by single-cell morpho-rheological phenotyping of blood. <i>ELife</i> , 2018, 7, .	2.8	125
34	No Escape – A Novel Tool to Quantify Platelet Intra-Thrombus Movements. <i>Thrombosis and Haemostasis</i> , 2018, 118, 1515-1516.	1.8	0
35	Numerical Simulation of Real-Time Deformability Cytometry To Extract Cell Mechanical Properties. <i>ACS Biomaterials Science and Engineering</i> , 2017, 3, 2962-2973.	2.6	115
36	Actin stress fiber organization promotes cell stiffening and proliferation of pre-invasive breast cancer cells. <i>Nature Communications</i> , 2017, 8, 15237.	5.8	132

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37	High-throughput cell mechanical phenotyping for label-free titration assays of cytoskeletal modifications. <i>Cytoskeleton</i> , 2017, 74, 283-296.	1.0	49
38	<i>Plasmodium falciparum</i> erythrocyte-binding antigen 175 triggers a biophysical change in the red blood cell that facilitates invasion. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 4225-4230.	3.3	71
39	Enlightening discriminative network functional modules behind Principal Component Analysis separation in differential-omic science studies. <i>Scientific Reports</i> , 2017, 7, 43946.	1.6	45
40	Bone marrow niche-mimetics modulate HSPC function via integrin signaling. <i>Scientific Reports</i> , 2017, 7, 2549.	1.6	30
41	Toxicity and Immunogenicity in Murine Melanoma following Exposure to Physical Plasma-Derived Oxidants. <i>Oxidative Medicine and Cellular Longevity</i> , 2017, 2017, 1-12.	1.9	55
42	Mechanical phenotyping of primary human skeletal stem cells in heterogeneous populations by real-time deformability cytometry. <i>Integrative Biology (United Kingdom)</i> , 2016, 8, 616-623.	0.6	42
43	The F-actin modifier villin regulates insulin granule dynamics and exocytosis downstream of islet cell autoantigen 512. <i>Molecular Metabolism</i> , 2016, 5, 656-668.	3.0	19
44	A pH-driven transition of the cytoplasm from a fluid- to a solid-like state promotes entry into dormancy. <i>ELife</i> , 2016, 5, .	2.8	355
45	Real-Time Deformability Cytometry: High-Throughput Mechanical Phenotyping for Changes in Cell Function. <i>Biophysical Journal</i> , 2015, 108, 140a.	0.2	0
46	Extracting Cell Stiffness from Real-Time Deformability Cytometry: Theory and Experiment. <i>Biophysical Journal</i> , 2015, 109, 2023-2036.	0.2	193
47	Real-time deformability cytometry as a label-free indicator of cell function. , 2015, 2015, 1861-4.		8
48	Real-time deformability cytometry: on-the-fly cell mechanical phenotyping. <i>Nature Methods</i> , 2015, 12, 199-202.	9.0	580
49	Camera-based three-dimensional real-time particle tracking at kHz rates and Å accuracy. <i>Nature Communications</i> , 2015, 6, 5885.	5.8	109
50	Myosin II Activity Softens Cells in Suspension. <i>Biophysical Journal</i> , 2015, 108, 1856-1869.	0.2	96
51	Association of the EGF-TM7 receptor CD97 expression with FLT3-ITD in acute myeloid leukemia. <i>Oncotarget</i> , 2015, 6, 38804-38815.	0.8	14
52	Dynamic operation of optical fibres beyond the single-mode regime facilitates the orientation of biological cells. <i>Nature Communications</i> , 2014, 5, 5481.	5.8	60
53	DNA Interactions in Crowded Nanopores. <i>Nano Letters</i> , 2013, 13, 2798-2802.	4.5	36
54	Electrophoretic Forces on Multiple DNA Molecules in a Nanopore. <i>Biophysical Journal</i> , 2013, 104, 517a.	0.2	0

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55	DNA Translocation. , 2013, , 31-58.		3
56	Dynamic single-molecule force spectroscopy using optical tweezers and nanopores. Proceedings of SPIE, 2013, , .	0.8	0
57	Rapid internal contraction boosts DNA friction. Nature Communications, 2013, 4, 1780.	5.8	22
58	Voltageâ€driven transport of ions and <scp>DNA</scp> through nanocapillaries. Electrophoresis, 2012, 33, 3480-3487.	1.3	54
59	Microfluidics Reveals a Flow-Induced Large-Scale Polymorphism of Protein Aggregates. Journal of Physical Chemistry Letters, 2012, 3, 2803-2807.	2.1	40
60	Micro-rheology on (polymer-grafted) colloids using optical tweezers. Journal of Physics Condensed Matter, 2011, 23, 184114.	0.7	17
61	Nanocapillaries and optical tweezers for studies on DNA in confinement. Proceedings of SPIE, 2011, , .	0.8	0
62	Note: Direct force and ionic-current measurements on DNA in a nanocapillary. Review of Scientific Instruments, 2011, 82, 086102.	0.6	17
63	Simple Reconstitution of Protein Pores in Nano Lipid Bilayers. Nano Letters, 2011, 11, 3334-3340.	4.5	39
64	High-speed video-based tracking of optically trapped colloids. Journal of Optics (United Kingdom), 2011, 13, 044011.	1.0	24
65	Probing DNA with micro- and nanocapillaries and optical tweezers. Journal of Physics Condensed Matter, 2010, 22, 454113.	0.7	31
66	Detecting DNA Folding with Nanocapillaries. Nano Letters, 2010, 10, 2493-2497.	4.5	184
67	Real-time particle tracking at 10,000 fps using optical fiber illumination. Optics Express, 2010, 18, 22722.	1.7	78
68	Single colloid electrophoresis. Journal of Colloid and Interface Science, 2009, 337, 260-264.	5.0	32
69	Optical tweezers with 2.5â€kHz bandwidth video detection for single-colloid electrophoresis. Review of Scientific Instruments, 2008, 79, 023710.	0.6	64
70	Impact of method of immersion on the naturalness and impression of balance and reach activities. International Journal on Disability and Human Development, 2006, 5, .	0.2	1