

Mikhail Kandel

List of Publications by Year in descending order

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Version: 2024-02-01

63
papers

1,557
citations

304743

22
h-index

345221

36
g-index

72
all docs

72
docs citations

72
times ranked

1711
citing authors

#	ARTICLE	IF	CITATIONS
1	Gradient light interference microscopy for 3D imaging of unlabeled specimens. Nature Communications, 2017, 8, 210.	12.8	188
2	Three-dimensional mesostructures as high-temperature growth templates, electronic cellular scaffolds, and self-propelled microrobots. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E9455-E9464.	7.1	129
3	Phase imaging with computational specificity (PICS) for measuring dry mass changes in sub-cellular compartments. Nature Communications, 2020, 11, 6256.	12.8	109
4	Bond-selective transient phase imaging via sensing of the infrared photothermal effect. Light: Science and Applications, 2019, 8, 116.	16.6	62
5	Epi-illumination gradient light interference microscopy for imaging opaque structures. Nature Communications, 2019, 10, 4691.	12.8	58
6	Label-free tissue scanner for colorectal cancer screening. Journal of Biomedical Optics, 2017, 22, 066016.	2.6	49
7	Breast cancer diagnosis using spatial light interference microscopy. Journal of Biomedical Optics, 2015, 20, 111210.	2.6	48
8	Coupled circumferential and axial tension driven by actin and myosin influences in vivo axon diameter. Scientific Reports, 2017, 7, 14188.	3.3	48
9	Refractive index variance of cells and tissues measured by quantitative phase imaging. Optics Express, 2017, 25, 1573.	3.4	45
10	Real-time halo correction in phase contrast imaging. Biomedical Optics Express, 2018, 9, 623.	2.9	44
11	Spatial light interference microscopy: principle and applications to biomedicine. Advances in Optics and Photonics, 2021, 13, 353.	25.5	43
12	Label-Free Imaging of Single Microtubule Dynamics Using Spatial Light Interference Microscopy. ACS Nano, 2017, 11, 647-655.	14.6	42
13	Optical Assay of Erythrocyte Function in Banked Blood. Scientific Reports, 2014, 4, 6211.	3.3	39
14	Label-free quantitative evaluation of breast tissue using Spatial Light Interference Microscopy (SLIM). Scientific Reports, 2018, 8, 6875.	3.3	39
15	Halo-free Phase Contrast Microscopy. Scientific Reports, 2017, 7, 44034.	3.3	34
16	White-light diffraction phase microscopy at doubled space-bandwidth product. Optics Express, 2016, 24, 29033.	3.4	34
17	Programming Mechanical and Physicochemical Properties of 3D Hydrogel Cellular Microcultures via Direct Ink Writing. Advanced Healthcare Materials, 2016, 5, 1025-1039.	7.6	32
18	3D-Printed pHEMA Materials for Topographical and Biochemical Modulation of Dorsal Root Ganglion Cell Response. ACS Applied Materials & Interfaces, 2017, 9, 30318-30328.	8.0	32

#	ARTICLE	IF	CITATIONS
19	Quantitative Histopathology of Stained Tissues using Color Spatial Light Interference Microscopy (cSLIM). Scientific Reports, 2019, 9, 14679.	3.3	30
20	Wolf phase tomography (WPT) of transparent structures using partially coherent illumination. Light: Science and Applications, 2020, 9, 142.	16.6	30
21	Reproductive outcomes predicted by phase imaging with computational specificity of spermatozoon ultrastructure. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 18302-18309.	7.1	28
22	Engineering geometrical 3-dimensional untethered in vitro neural tissue mimic. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 25932-25940.	7.1	26
23	Network science characteristics of brain-derived neuronal cultures deciphered from quantitative phase imaging data. Scientific Reports, 2020, 10, 15078.	3.3	26
24	Cell Cycle Stage Classification Using Phase Imaging with Computational Specificity. ACS Photonics, 2022, 9, 1264-1273.	6.6	23
25	Three-dimensional intracellular transport in neuron bodies and neurites investigated by label-free dispersion-relaxation phase spectroscopy. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2017, 91, 519-526.	1.5	22
26	Magnified Image Spatial Spectrum (MISS) microscopy for nanometer and millisecond scale label-free imaging. Optics Express, 2018, 26, 5423.	3.4	22
27	3D-Printed Hydrogel Composites for Predictive Temporal (4D) Cellular Organizations and Patterned Biogenic Mineralization. Advanced Healthcare Materials, 2019, 8, e1800788.	7.6	21
28	Cell density modulates intracellular mass transport in neural networks. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2017, 91, 503-509.	1.5	19
29	Multiscale Assay of Unlabeled Neurite Dynamics Using Phase Imaging with Computational Specificity. ACS Sensors, 2021, 6, 1864-1874.	7.8	19
30	Regulation of local GTP availability controls RAC1 activity and cell invasion. Nature Communications, 2021, 12, 6091.	12.8	17
31	Graphene oxide substrates with N-cadherin stimulates neuronal growth and intracellular transport. Acta Biomaterialia, 2019, 90, 412-423.	8.3	16
32	Real-time Jones phase microscopy for studying transparent and birefringent specimens. Optics Express, 2020, 28, 34190.	3.4	16
33	Active intracellular transport in metastatic cells studied by spatial light interference microscopy. Journal of Biomedical Optics, 2015, 20, 111209.	2.6	15
34	Label-free, multi-scale imaging of ex-vivo mouse brain using spatial light interference microscopy. Scientific Reports, 2016, 6, 39667.	3.3	15
35	Quantitative assessment of neural outgrowth using spatial light interference microscopy. Journal of Biomedical Optics, 2017, 22, 066015.	2.6	14
36	SLIM microscopy allows for visualization of DNA-containing liposomes designed for sperm-mediated gene transfer in cattle. Molecular Biology Reports, 2019, 46, 695-703.	2.3	11

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37	Computational interference microscopy enabled by deep learning. APL Photonics, 2021, 6, 046103.	5.7	11
38	Topography and refractometry of sperm cells using spatial light interference microscopy. Journal of Biomedical Optics, 2018, 23, 1.	2.6	11
39	Harmonically decoupled gradient light interference microscopy (HD-GLIM). Optics Letters, 2020, 45, 1487.	3.3	11
40	High-resolution impedance mapping using electrically activated quantitative phase imaging. Light: Science and Applications, 2021, 10, 20.	16.6	10
41	Cell-to-cell influence on growth in large populations. Biomedical Optics Express, 2019, 10, 4664.	2.9	10
42	Effects of substrate patterning on cellular spheroid growth and dynamics measured by gradient light interference microscopy (GLIM). Journal of Biophotonics, 2019, 12, e201900178.	2.3	9
43	Morphometric analysis of sperm used for IVP by three different separation methods with spatial light interference microscopy. Systems Biology in Reproductive Medicine, 2020, 66, 26-36.	2.1	9
44	Quantifying myelin content in brain tissue using color Spatial Light Interference Microscopy (cSLIM). PLoS ONE, 2020, 15, e0241084.	2.5	8
45	Synthetic aperture interference light (SAIL) microscopy for high-throughput label-free imaging. Applied Physics Letters, 2021, 119, 233701.	3.3	6
46	Matrix Softness-Mediated 3D Zebrafish Hepatocyte Modulates Response to Endocrine Disrupting Chemicals. Environmental Science & Technology, 2020, 54, 13797-13806.	10.0	5
47	Cellular Microcultures: Programming Mechanical and Physicochemical Properties of 3D Hydrogel Cellular Microcultures via Direct Ink Writing (Adv. Healthcare Mater. 9/2016). Advanced Healthcare Materials, 2016, 5, 990-990.	7.6	4
48	Automatic tissue segmentation of breast biopsies imaged by QPI. Proceedings of SPIE, 2016, , .	0.8	3
49	High-throughput sperm assay using label-free microscopy: morphometric comparison between different sperm structures of boar and stallion spermatozoa. Animal Reproduction Science, 2020, 219, 106509.	1.5	3
50	Monitoring reactivation of latent HIV by label-free gradient light interference microscopy. IScience, 2021, 24, 102940.	4.1	2
51	Circadian Volume Changes in Hippocampal Glia Studied by Label-Free Interferometric Imaging. Cells, 2022, 11, 2073.	4.1	2
52	Antiresonant guiding photonic crystal fibers for distributed temperature gradient measurements. Applied Physics B: Lasers and Optics, 2011, 105, 329-333.	2.2	1
53	Human Analysts at Superhuman Scales: What Has Friendly Software To Do?. Big Data, 2013, 1, 227-236.	3.4	1
54	C++ software integration for a high-throughput phase imaging platform. Proceedings of SPIE, 2015, , .	0.8	1

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55	Diagnosis of breast cancer biopsies using quantitative phase imaging. , 2015, , .		1
56	Nuclear dynamics in metastatic cells studied by quantitative phase imaging. , 2015, , .		1
57	High throughput imaging of blood smears using white light diffraction phase microscopy. Proceedings of SPIE, 2015, , .	0.8	1
58	Monitoring in-vitro bovine embryo development during the first days after fertilization (Conference) Tj ETQq0 0 0 rgBT /Overl0ck 10 Tf 5		
59	Gradient light interference microscopy (GLIM) for imaging thick specimens (Conference Presentation). , 2016, , .		0
60	Highly sensitive kinesin-microtubule motility assays using SLIM. Proceedings of SPIE, 2016, , .	0.8	0
61	Label-free tomographic reconstruction of optically thick structures using GLIM (Conference) Tj ETQq1 1 0.784314 rgBT /Overl0ck 10 Tf		
62	10.1063/5.0041901.1. , 2021, , .		0
63	Halo-free phase contrast microscopy (Conference Presentation). , 2017, , .		0