Cheng Lei

List of Publications by Year in descending order

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Version: 2024-02-01

48 papers	1,797 citations	361413 20 h-index	289244 40 g-index
50 all docs	50 docs citations	50 times ranked	2002 citing authors

#	Article	IF	Citations
1	Intelligent Image-Activated Cell Sorting. Cell, 2018, 175, 266-276.e13.	28.9	395
2	Label-free chemical imaging flow cytometry by high-speed multicolor stimulated Raman scattering. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 15842-15848.	7.1	130
3	Raman image-activated cell sorting. Nature Communications, 2020, 11, 3452.	12.8	116
4	High-throughput imaging flow cytometry by optofluidic time-stretch microscopy. Nature Protocols, 2018, 13, 1603-1631.	12.0	112
5	Optical time-stretch imaging: Principles and applications. Applied Physics Reviews, 2016, 3, 011102.	11.3	93
6	Virtual-freezing fluorescence imaging flow cytometry. Nature Communications, 2020, 11, 1162.	12.8	93
7	AI on a chip. Lab on A Chip, 2020, 20, 3074-3090.	6.0	80
8	Label-free detection of cellular drug responses by high-throughput bright-field imaging and machine learning. Scientific Reports, 2017, 7, 12454.	3.3	78
9	Label-free detection of aggregated platelets in blood by machine-learning-aided optofluidic time-stretch microscopy. Lab on A Chip, 2017, 17, 2426-2434.	6.0	65
10	Highâ€throughput, labelâ€free, singleâ€cell, microalgal lipid screening by machineâ€learningâ€equipped optofluidic timeâ€stretch quantitative phase microscopy. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2017, 91, 494-502.	1.5	60
11	Intelligent classification of platelet aggregates by agonist type. ELife, 2020, 9, .	6.0	49
12	Intelligent whole-blood imaging flow cytometry for simple, rapid, and cost-effective drug-susceptibility testing of leukemia. Lab on A Chip, 2019, 19, 2688-2698.	6.0	48
13	High-Speed Imaging Meets Single-Cell Analysis. CheM, 2018, 4, 2278-2300.	11.7	37
14	Optofluidic time-stretch quantitative phase microscopy. Methods, 2018, 136, 116-125.	3.8	35
15	High-throughput label-free image cytometry and image-based classification of live Euglena gracilis. Biomedical Optics Express, 2016, 7, 2703.	2.9	34
16	Multiwavelength time-stretch imaging system. Optics Letters, 2014, 39, 2202.	3.3	30
17	High-throughput optofluidic particle profiling with morphological and chemical specificity. Optics Letters, 2015, 40, 4803.	3.3	28
18	High-Throughput Accurate Single-Cell Screening of Euglena gracilis with Fluorescence-Assisted Optofluidic Time-Stretch Microscopy. PLoS ONE, 2016, 11, e0166214.	2.5	23

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19	Photonics-Assisted Serial Channelized Radio-Frequency Measurement System With Nyquist-Bandwidth Detection. IEEE Photonics Journal, 2014, 6, 1-7.	2.0	22
20	Serial wavelength division 1â€‰â€‰GHz line-scan microscopic imaging. Photonics Research, 2014, 2, B31.	7.0	21
21	Intelligent frequency-shifted optofluidic time-stretch quantitative phase imaging. Optics Express, 2020, 28, 519.	3.4	21
22	Effects of Flowâ€Induced Microfluidic Chip Wall Deformation on Imaging Flow Cytometry. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2020, 97, 909-920.	1.5	20
23	Recirculating Frequency Shifting Based Wideband Optical Frequency Comb Generation by Phase Coherence Control. IEEE Photonics Journal, 2015, 7, 1-7.	2.0	19
24	16Ã—10Gb/s symmetric WDM-FOFDM-PON realization with colorless ONUs. Optics Express, 2011, 19, 15275.	3.4	16
25	Intelligent Platelet Morphometry. Trends in Biotechnology, 2021, 39, 978-989.	9.3	16
26	Virtual optofluidic time-stretch quantitative phase imaging. APL Photonics, 2020, 5, 046103.	5.7	15
27	1-Tb/s WDM-OFDM-PON System With Subband Access Scheme and Flexible Subcarrier-Level Bandwidth Allocation. IEEE Photonics Journal, 2013, 5, 7900208-7900208.	2.0	14
28	Dense Contour-Imbalance Aware framework for Colon Gland Instance Segmentation. Biomedical Signal Processing and Control, 2020, 60, 101988.	5.7	13
29	AI boosts photonics and vice versa. APL Photonics, 2020, 5, 070401.	5.7	13
30	A high spectral efficiency optical OFDM scheme based on interleaved multiplexing. Optics Express, 2010, 18, 26149.	3.4	12
31	GHz Optical Time-Stretch Microscopy by Compressive Sensing. IEEE Photonics Journal, 2017, 9, 1-8.	2.0	12
32	Intelligent Image Deâ€Blurring for Imaging Flow Cytometry. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2019, 95, 549-554.	1.5	12
33	Time-stretch high-speed microscopic imaging system based on temporally and spectrally shaped amplified spontaneous emission. Optics Letters, 2015, 40, 946.	3.3	9
34	Adversarial Multiscale Feature Learning Framework for Overlapping Chromosome Segmentation. Entropy, 2022, 24, 522.	2.2	9
35	Optofluidic time-stretch microscopy: recent advances. Optical Review, 2018, 25, 464-472.	2.0	8
36	The complete optical oscilloscope. Nature Photonics, 2018, 12, 190-191.	31.4	7

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37	Morphological Indicator for Directed Evolution of Euglena gracilis with a High Heavy Metal Removal Efficiency. Environmental Science & Technology, 2021, 55, 7880-7889.	10.0	7
38	Temporally interleaved optical time-stretch imaging. Optics Letters, 2020, 45, 2387.	3.3	7
39	Ultrafast imaging for uncovering laserâ€“material interaction dynamics. International Journal of Mechanical System Dynamics, 2022, 2, 65-81.	2.8	6
40	Real-time and high-sensitivity refractive index sensing with an arched optofluidic waveguide. Optics Express, 0, , .	3.4	4
41	Analysis of signal detection configurations in optical time-stretch imaging. Optics Express, 2020, 28, 29272.	3.4	3
42	Temporally controlled wideband optical frequency comb generation based on recirculating frequency shifting. , 2014, , .		2
43	High-throughput, label-free, multivariate cell analysis with optofluidic time-stretch microscopy. , 2017, , .		2
44	High-throughput label-free screening of euglena gracilis with optofluidic time-stretch quantitative phase microscopy. , 2017, , .		1
45	Improving O-OFDM system performance with constellation fine adjustment. , 2010, , .		0
46	Photonics generation of linearly chirped electrical pulse with ultra-wide frequency band up to THz. , 2013, , .		0
47	Time-stretch imaging and beyond. , 2018, , .		0
48	A comparison of image recognition algorithms for cell phenotyping in optofluidic time-stretch microscopy. , 2019, , .		0