Lujiang Yan

List of Publications by Year
in descending order

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97 papers	2,831 citations	279487 23 h-index	182168 51 g-index
97 all docs	97 docs citations	97 times ranked	4025 citing authors

#	Article	IF	Citations
1	Strain engineering and epitaxial stabilization of halide perovskites. Nature, 2020, 577, 209-215.	13.7	417
2	Fluidic adaptive lens with high focal length tunability. Applied Physics Letters, 2003, 82, 3171-3172.	1.5	399
3	Review: imaging technologies for flow cytometry. Lab on A Chip, 2016, 16, 4639-4647.	3.1	202
4	Symmetry-breaking-induced plasmonic exceptional points and nanoscale sensing. Nature Physics, 2020, 16, 462-468.	6.5	178
5	Human mammalian cell sorting using a highly integrated micro-fabricated fluorescence-activated cell sorter (Î¼FACS). Lab on A Chip, 2010, 10, 1567.	3.1	166
6	Nucleic Acid Aptamers: An Emerging Tool for Biotechnology and Biomedical Sensing. Sensors, 2015, 15, 16281-16313.	2.1	140
7	A Singleâ€Cell Assay for Time Lapse Studies of Exosome Secretion and Cell Behaviors. Small, 2016, 12, 3658-3666.	5.2	83
8	Controlled Homoepitaxial Growth of Hybrid Perovskites. Advanced Materials, 2018, 30, e1705992.	11.1	82
9	Universally applicable three-dimensional hydrodynamic microfluidic flow focusing. Lab on A Chip, 2013, 13, 1803.	3.1	78
10	Microfluidic cell sorter with integrated piezoelectric actuator. Biomedical Microdevices, 2009, 11, 1223-1231.	1.4	71
11	Fluidic adaptive lens of transformable lens type. Applied Physics Letters, 2004, 84, 4194-4196.	1.5	63
12	Demonstration of two-dimensional fluidic lens for integration into microfluidic flow cytometers. Applied Physics Letters, 2006, 89, 061106.	1.5	63
13	Machine Learning Based Realâ€Time Imageâ€Guided Cell Sorting and Classification. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2019, 95, 499-509.	1.1	60
14	A cellâ€free expression and purification process for rapid production of protein biologics. Biotechnology Journal, 2016, 11, 238-248.	1.8	59
15	A Prealigned Process of Integrating Optical Waveguides With Microfluidic Devices. IEEE Photonics Technology Letters, 2004, 16, 1525-1527.	1.3	50
16	Specific Sorting of Single Bacterial Cells with Microfabricated Fluorescence-Activated Cell Sorting and Tyramide Signal Amplification Fluorescence in Situ Hybridization. Analytical Chemistry, 2011, 83, 7269-7275.	3.2	50
17	Imaging Cells in Flow Cytometer Using Spatial-Temporal Transformation. Scientific Reports, 2015, 5, 13267.	1.6	47
18	High-sensitivity cytometric detection using fluidic-photonic integrated circuits with array waveguides. IEEE Journal of Selected Topics in Quantum Electronics, 2005, 11, 827-834.	1.9	46

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19	Reversing Coffee-Ring Effect by Laser-Induced Differential Evaporation. Scientific Reports, 2018, 8, 3157.	1.6	41
20	InGaAs single photon avalanche detector with ultralow excess noise. Applied Physics Letters, 2007, 91, 081107.	1.5	29
21	Self-Assembled Pico-Liter Droplet Microarray for Ultrasensitive Nucleic Acid Quantification. ACS Nano, 2015, 9, 10655-10663.	7.3	27
22	Proteinâ€“Ligand Interaction Detection with a Novel Method of Transient Induced Molecular Electronic Spectroscopy (TIMES): Experimental and Theoretical Studies. ACS Central Science, 2016, 2, 834-842.	5.3	27
23	Fluidic photonic integrated circuit for in-line detection. Applied Physics Letters, 2005, 87, 194106.	1.5	25
24	Cameraless high-throughput three-dimensional imaging flow cytometry. Optica, 2019, 6, 1297.	4.8	24
25	Bias Dependence of Sub-Bandgap Light Detection for Coreâ€“Shell Silicon Nanowires. Nano Letters, 2012, 12, 5929-5935.	4.5	20
26	Self-quenching InGaAs/InP single photon avalanche detector utilizing zinc diffusion rings. Optics Express, 2011, 19, 15149.	1.7	19
27	Single photon avalanche detectors: prospects of new quenching and gain mechanisms. Nanophotonics, 2015, 4, 397-412.	2.9	19
28	Array atomic force microscopy for real-time multiparametric analysis. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 5872-5877.	3.3	18
29	Fluidic Zoom-Lens-on-a-Chip With Wide Field-of-View Tuning Range. IEEE Photonics Technology Letters, 2004, 16, 2356-2358.	1.3	15
30	Integrated fluidic lenses and optic systems. IEEE Journal of Selected Topics in Quantum Electronics, 2005, 11, 97-106.	1.9	14
31	Scattering-Based Cytometric Detection Using Integrated Arrayed Waveguides With Microfluidics. IEEE Photonics Technology Letters, 2007, 19, 441-443.	1.3	13
32	Discovery of a photoresponse amplification mechanism in compensated PN junctions. Applied Physics Letters, 2015, 106, 031103.	1.5	13
33	Cycling excitation process: An ultra efficient and quiet signal amplification mechanism in semiconductor. Applied Physics Letters, 2015, 107, 053505.	1.5	13
34	In Vivo Photovoltaic Performance of a Silicon Nanowire Photodiodeâ€“Based Retinal Prosthesis. , 2018, 59, 5885.		13
35	Nonsteady-state surface plasmons in periodically patterned structures. Journal of Applied Physics, 2004, 95, 4163-4172.	1.1	12
36	Image-guided cell sorting using fast scanning lasers. APL Photonics, 2020, 5, 040801.	3.0	12

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37	An amorphous silicon photodiode with 2 THz gainâ€bandwidth product based on cycling excitation process. Applied Physics Letters, 2017, 111, 101104.	1.5	11
38	Analysis of Hot-Carrier Luminescence for Infrared Single-Photon Upconversion and Readout. IEEE Journal of Selected Topics in Quantum Electronics, 2007, 13, 959-966.	1.9	10
39	Physics of Single Photon Avalanche Detectors With Built-In Self-Quenching and Self-Recovering Capabilities. IEEE Journal of Quantum Electronics, 2012, 48, 960-967.	1.0	10
40	Computational cell analysis for label-free detection of cell properties in a microfluidic laminar flow. Analyst, The, 2016, 141, 4142-4150.	1.7	10
41	3D side-scattering imaging flow cytometer and convolutional neural network for label-free cell analysis. APL Photonics, 2020, 5, 126105.	3.0	10
42	Room-temperature long-wave infrared detector with thin double layers of amorphous germanium and amorphous silicon. Optics Express, 2019, 27, 37056.	1.7	10
43	Microspherical surfaces with predefined focal lengths fabricated using microfluidic capillaries. Applied Physics Letters, 2003, 83, 5563-5565.	1.5	9
44	Integrated 1550Ânm photoreceiver with built-in amplification and feedback mechanisms. Optics Letters, 2013, 38, 4166.	1.7	9
45	Thin-Film Transistor-Based Biosensors for Determining Stoichiometry of Biochemical Reactions. PLoS ONE, 2016, 11, e0169094.	1.1	9
46	A two-stage electrophoretic microfluidic device for nucleic acid collection and enrichment. Microfluidics and Nanofluidics, 2016, 20, 1.	1.0	9
47	Rapid Waterborne Pathogen Detection with Mobile Electronics. Sensors, 2017, 17, 1348.	2.1	9
48	A high-throughput technique to map cell images to cell positions using a 3D imaging flow cytometer. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	9
49	Complementary metalâ€“oxideâ€“semiconductor compatible 1060â€‰â€‰nm photodetector with ultrahigh gain under low bias. Optics Letters, 2015, 40, 4440.	1.7	8
50	Plasmonically Enhanced Amorphous Silicon Photodetector With Internal Gain. IEEE Photonics Technology Letters, 2019, 31, 959-962.	1.3	8
51	Integrated Fluidic Photonics for Multi-Parameter In-Plane Detection in Microfluidic Flow Cytometry. , 2006, , .		6
52	High efficiency silicon 1310â€‰nm detector without defect states or heteroepitaxy. Applied Physics Letters, 2013, 103, 041119.	1.5	6
53	Non-Geiger mode single photon detector with multiple amplification and gain control mechanisms. Journal of Applied Physics, 2014, 115, 173104.	1.1	6
54	Approaching the Quantum Limit of Photodetection in Solid-State Photodetectors. IEEE Transactions on Electron Devices, 2017, 64, 4812-4822.	1.6	6

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55	Comment on â€œGhost cytometryâ€• Science, 2019, 364, .	6.0	6
56	Transient Induced Molecular Electronic Spectroscopy (TIMES) for study of protein-ligand interactions. Scientific Reports, 2016, 6, 35570.	1.6	5
57	Single photon detector with a mesoscopic cycling excitation design of dual gain sections and a transport barrier. Optics Letters, 2019, 44, 1746.	1.7	5
58	Engineering of quantum dot emission wavelength using conductive layer coating. Applied Physics Letters, 2006, 88, 243104.	1.5	4
59	Defect Assisted Carrier Multiplication in Amorphous Silicon. IEEE Journal of Quantum Electronics, 2020, 56, 1-11.	1.0	4
60	Using airflow-driven, evaporative gradients to improve sensitivity and fluid control in colorimetric paper-based assays. Lab on A Chip, 2021, 21, 4249-4261.	3.1	4
61	Minimizing iridium oxide electrodes for high visual acuity subretinal stimulation. ENeuro, 2021, , ENEURO.0506-20.2021.	0.9	4
62	A novel technology for fabricating gratings of any chirp characteristics by design. IEEE Photonics Technology Letters, 2003, 15, 712-714.	1.3	3
63	Two-dimensional lenses microfabricated in PDMS for integrated fluidic photonic devices. , 2006, , .		3
64	Planar and vertical Si nanowire photodetectors. , 2008, , .		3
65	Modeling Gain Mechanisms in Amorphous Silicon Due to Efficient Carrier Multiplication and Trap-Induced Junction Modulation. Journal of Lightwave Technology, 2019, 37, 5056-5066.	2.7	3
66	Label-free image-encoded microfluidic cell sorter with a scanning Bessel beam. APL Photonics, 2021, 6, 076101.	3.0	3
67	Quantitative Analysis of Exosome Secretion Rates of Single Cells. Bio-protocol, 2017, 7, .	0.2	3
68	High Sensitivity, Rapid Detection of Virus in High Traffic Environments. Frontiers in Bioengineering and Biotechnology, 2022, 10, 877603.	2.0	3
69	Microfluidic Flow Cytometer with On-Chip Lens Systems for Improved Signal Resolution. , 2007, , .		2
70	Cycling excitation process for light detection and signal amplification in semiconductors. , 2016, , .		2
71	Characterizations of protein-ligand reaction kinetics by transistor-microfluidic integrated sensors. Analytica Chimica Acta, 2020, 1110, 1-10.	2.6	2
72	Non-Invasive Blood Flow Speed Measurement Using Optics. Sensors, 2022, 22, 897.	2.1	2

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73	Multimodal NASH prognosis using 3D imaging flow cytometry and artificial intelligence to characterize liver cells. Scientific Reports, 2022, 12, .	1.6	2
74	Fluidic photonic integrated circuit (FPIC) cytometric detection. , 2005, , .		1
75	InGaAs/InP MOS Single Photon Detector. , 2006, , .		1
76	Negative feedback and multiple gain mechanisms for sensitivity improvement in 1550nm optical detection. , 2013, , .		1
77	A microfluidic design for desalination and selective removal and addition of components in biosamples. Biomicrofluidics, 2019, 13, 024109.	1.2	1
78	A Physics Based Unified Circuit Model for Single Photon and Analog Detector. IEEE Access, 2021, 9, 129571-129581.	2.6	1
79	A novel technology for fabricating gratings of any chirp characteristics by design. , 0, , .		0
80	Fluidic zoom-lens-system-on-a chip. , 0, , .		0
81	Microfluidic-photonic-delectrophoretic integrated circuits for biophotonic sensing. , 0, , .		0
82	InGaAs/InP MOS device for single photon detection, amplification, and wavelength conversion. , 2005, , .		0
83	High-Sensitivity scattering-based detection under symmetrical arrayed-waveguide platform. , 0, , .		0
84	Cellular sorting with femtoliter fluid displacement for integrated flow cytometry systems. , 2006, , .		0
85	High Gain ZnO Nanowire Phototransistor. , 2007, , .		0
86	Integrated Microfluidic Photonic Circuits. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , .	0.0	0
87	Ultra Low Noise InGaAs Single Photon Detector with Transient Carrier Buffer. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , .	0.0	0
88	Miniature Unified Imaging Device Using Fluidic Lenses. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , .	0.0	0
89	Integrated Microfluidic Photonic Sensors. LEOS Summer Topical Meeting, 2007, , .	0.0	0
90	Patterned zinc-diffused structures for improved avalanche probabilities in InGaAs/InP single photon detectors. , 2011, , .		0

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91	Microfluidic flow cytometer utilizing optical space-time coding technique. , 2011, , .		0
92	Efficient detection of 1310 nm light using silicon nanoscaled p/n junctions. , 2013, , .		0
93	A Self-Confined Single-Cell Loading Platform Combining PDMS Mesh and Patterned Cytop for Non-invasive Studies of Single Cell Secretions. , 2016, , .		0
94	An ultra-efficient internal mechanism to amplify photoresponse for Si and compound semiconductor devices. , 2016, , .		0
95	Quantum detectors using cycling excitation process in disordered medium. , 2017, , .		0
96	Low Noise, High Gain-Bandwidth Photodetectors Using Cycling Exciting Process (CEP) as Amplification Mechanism. , 2018, , .		0
97	Athermalized carrier multiplication mechanism for detectors using an amorphous silicon gain medium. Optics Express, 2022, 30, 16947.	1.7	0