Lujiang Yan

List of Publications by Year in Descending Order

72 papers	1,847 citations	20 h-index	42 g-index
97 ext. papers	2,400 ext. citations	6.1 avg, IF	4.74 L-index

#	Paper	IF	Citations
72	High Sensitivity, Rapid Detection of Virus in High Traffic Environments.. *Frontiers in Bioengineering and Biotechnology*, **2022**, 10, 877603	5.8	1
71	Athermalized carrier multiplication mechanism for detectors using an amorphous silicon gain medium. *Optics Express*, **2022**, 30, 16947	3.3	
70	A Physics Based Unified Circuit Model for Single Photon and Analog Detector. *IEEE Access*, **2021**, 9, 129571-129581	3.5	
69	Label-free image-encoded microfluidic cell sorter with a scanning Bessel beam. *APL Photonics*, **2021**, 6, 076101	5.2	0
68	Using airflow-driven, evaporative gradients to improve sensitivity and fluid control in colorimetric paper-based assays. *Lab on A Chip*, **2021**, 21, 4249-4261	7.2	2
67	Image-guided cell sorting using fast scanning lasers. *APL Photonics*, **2020**, 5, 040801	5.2	3
66	Characterizations of protein-ligand reaction kinetics by transistor-microfluidic integrated sensors. *Analytica Chimica Acta*, **2020**, 1110, 1-10	6.6	2
65	Symmetry-breaking-induced plasmonic exceptional points and nanoscale sensing. *Nature Physics*, **2020**, 16, 462-468	16.2	53
64	Defect Assisted Carrier Multiplication in Amorphous Silicon. *IEEE Journal of Quantum Electronics*, **2020**, 56, 1-11	2	4
63	3D side-scattering imaging flow cytometer and convolutional neural network for label-free cell analysis. *APL Photonics*, **2020**, 5, 126105	5.2	3
62	Strain engineering and epitaxial stabilization of halide perovskites. *Nature*, **2020**, 577, 209-215	50.4	213
61	Plasmonically Enhanced Amorphous Silicon Photodetector With Internal Gain. *IEEE Photonics Technology Letters*, **2019**, 31, 959-962	2.2	4
60	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	11.5	8
59	Machine Learning Based Real-Time Image-Guided Cell Sorting and Classification. *Cytometry Part A: the Journal of the International Society for Analytical Cytology*, **2019**, 95, 499-509	4.6	29
58	A microfluidic design for desalination and selective removal and addition of components in biosamples. *Biomicrofluidics*, **2019**, 13, 024109	3.2	1
57	Modeling Gain Mechanisms in Amorphous Silicon Due to Efficient Carrier Multiplication and Trap-Induced Junction Modulation. *Journal of Lightwave Technology*, **2019**, 37, 5056-5066	4	3
56	Room-temperature long-wave infrared detector with thin double layers of amorphous germanium and amorphous silicon. *Optics Express*, **2019**, 27, 37056-37064	3.3	6

55	Cameraless high-throughput three-dimensional imaging flow cytometry. *Optica*, **2019**, 6, 1297	8.6	12
54	Single photon detector with a mesoscopic cycling excitation design of dual gain sections and a transport barrier. *Optics Letters*, **2019**, 44, 1746-1749	3	5
53	Comment on "Ghost cytometry". *Science*, **2019**, 364,	33.3	3
52	Controlled Homoepitaxial Growth of Hybrid Perovskites. *Advanced Materials*, **2018**, 30, e1705992	24	51
51	Reversing Coffee-Ring Effect by Laser-Induced Differential Evaporation. *Scientific Reports*, **2018**, 8, 3157	4.9	26
50	In Vivo Photovoltaic Performance of a Silicon Nanowire Photodiode-Based Retinal Prosthesis **2018**, 59, 5885-5892		8
49	An amorphous silicon photodiode with 2 THz gain-bandwidth product based on cycling excitation process. *Applied Physics Letters*, **2017**, 111, 101104	3.4	10
48	Approaching the Quantum Limit of Photodetection in Solid-State Photodetectors. *IEEE Transactions on Electron Devices*, **2017**, 64, 4812-4822	2.9	2
47	Rapid Waterborne Pathogen Detection with Mobile Electronics. *Sensors*, **2017**, 17,	3.8	7
46	Quantitative Analysis of Exosome Secretion Rates of Single Cells. *Bio-protocol*, **2017**, 7,	0.9	3
45	Transient Induced Molecular Electronic Spectroscopy (TIMES) for study of protein-ligand interactions. *Scientific Reports*, **2016**, 6, 35570	4.9	4
44	Protein-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	16.8	14
43	Review: imaging technologies for flow cytometry. *Lab on A Chip*, **2016**, 16, 4639-4647	7.2	127
42	Thin-Film Transistor-Based Biosensors for Determining Stoichiometry of Biochemical Reactions. *PLoS ONE*, **2016**, 11, e0169094	3.7	6
41	A Single-Cell Assay for Time Lapse Studies of Exosome Secretion and Cell Behaviors. *Small*, **2016**, 12, 3658-66	11	46
40	A cell-free expression and purification process for rapid production of protein biologics. *Biotechnology Journal*, **2016**, 11, 238-48	5.6	43
39	Cycling excitation process for light detection and signal amplification in semiconductors **2016**,		1
38	Computational cell analysis for label-free detection of cell properties in a microfluidic laminar flow. *Analyst, The*, **2016**, 141, 4142-50	5	8

37	A two-stage electrophoretic microfluidic device for nucleic acid collection and enrichment. *Microfluidics and Nanofluidics*, **2016**, 20, 1	2.8	6
36	Discovery of a photoresponse amplification mechanism in compensated PN junctions. *Applied Physics Letters*, **2015**, 106, 031103	3.4	11
35	Self-Assembled Pico-Liter Droplet Microarray for Ultrasensitive Nucleic Acid Quantification. *ACS Nano*, **2015**, 9, 10655-63	16.7	18
34	Cycling excitation process: An ultra efficient and quiet signal amplification mechanism in semiconductor. *Applied Physics Letters*, **2015**, 107, 053505	3.4	11
33	Imaging Cells in Flow Cytometer Using Spatial-Temporal Transformation. *Scientific Reports*, **2015**, 5, 13267	4.9	36
32	Single photon avalanche detectors: prospects of new quenching and gain mechanisms. *Nanophotonics*, **2015**, 4, 397-412	6.3	13
31	Nucleic Acid Aptamers: An Emerging Tool for Biotechnology and Biomedical Sensing. *Sensors*, **2015**, 15, 16281-313	3.8	100
30	Complementary metal-oxide-semiconductor compatible 1060 nm photodetector with ultrahigh gain under low bias. *Optics Letters*, **2015**, 40, 4440-3	3	7
29	Non-Geiger mode single photon detector with multiple amplification and gain control mechanisms. *Journal of Applied Physics*, **2014**, 115, 173104	2.5	4
28	High efficiency silicon 1310 nm detector without defect states or heteroepitaxy. *Applied Physics Letters*, **2013**, 103, 041119	3.4	5
27	Universally applicable three-dimensional hydrodynamic microfluidic flow focusing. *Lab on A Chip*, **2013**, 13, 1803-9	7.2	67
26	Integrated 1550 nm photoreceiver with built-in amplification and feedback mechanisms. *Optics Letters*, **2013**, 38, 4166-9	3	8
25	Physics of Single Photon Avalanche Detectors With Built-In Self-Quenching and Self-Recovering Capabilities. *IEEE Journal of Quantum Electronics*, **2012**, 48, 960-967	2	9
24	Bias dependence of sub-bandgap light detection for core-shell silicon nanowires. *Nano Letters*, **2012**, 12, 5929-35	11.5	20
23	Specific sorting of single bacterial cells with microfabricated fluorescence-activated cell sorting and tyramide signal amplification fluorescence in situ hybridization. *Analytical Chemistry*, **2011**, 83, 7269-75	7.8	42
22	Self-quenching InGaAs/InP single photon avalanche detector utilizing zinc diffusion rings. *Optics Express*, **2011**, 19, 15149-54	3.3	17
21	Human mammalian cell sorting using a highly integrated micro-fabricated fluorescence-activated cell sorter (microFACS). *Lab on A Chip*, **2010**, 10, 1567-73	7.2	142
20	Microfluidic cell sorter with integrated piezoelectric actuator. *Biomedical Microdevices*, **2009**, 11, 1223-31	3.7	61

19	Planar and vertical Si nanowire photodetectors **2008**,		2
18	Scattering-Based Cytometric Detection Using Integrated Arrayed Waveguides With Microfluidics. *IEEE Photonics Technology Letters*, **2007**, 19, 441-443	2.2	7
17	Analysis of Hot-Carrier Luminescence for Infrared Single-Photon Upconversion and Readout. *IEEE Journal of Selected Topics in Quantum Electronics*, **2007**, 13, 959-966	3.8	7
16	Microfluidic Flow Cytometer with On-Chip Lens Systems for Improved Signal Resolution **2007**,		2
15	InGaAs single photon avalanche detector with ultralow excess noise. *Applied Physics Letters*, **2007**, 91, 081107	3.4	19
14	Engineering of quantum dot emission wavelength using conductive layer coating. *Applied Physics Letters*, **2006**, 88, 243104	3.4	2
13	InGaAs/InP MOS Single Photon Detector **2006**,		1
12	Demonstration of two-dimensional fluidic lens for integration into microfluidic flow cytometers. *Applied Physics Letters*, **2006**, 89, 061106	3.4	55
11	Integrated Fluidic Photonics for Multi-Parameter In-Plane Detection in Microfluidic Flow Cytometry **2006**,		4
10	Fluidic photonic integrated circuit for in-line detection. *Applied Physics Letters*, **2005**, 87, 194106	3.4	22
9	Integrated fluidic lenses and optic systems. *IEEE Journal of Selected Topics in Quantum Electronics*, **2005**, 11, 97-106	3.8	9
8	High-sensitivity cytometric detection using fluidic-photonic integrated circuits with array waveguides. *IEEE Journal of Selected Topics in Quantum Electronics*, **2005**, 11, 827-834	3.8	37
7	Fluidic adaptive lens of transformable lens type. *Applied Physics Letters*, **2004**, 84, 4194-4196	3.4	49
6	Nonsteady-state surface plasmons in periodically patterned structures. *Journal of Applied Physics*, **2004**, 95, 4163-4172	2.5	6
5	A prealigned process of integrating optical waveguides with microfluidic devices. *IEEE Photonics Technology Letters*, **2004**, 16, 1525-1527	2.2	34
4	Fluidic zoom-lens-on-a-chip with wide field-of-view tuning range. *IEEE Photonics Technology Letters*, **2004**, 16, 2356-2358	2.2	12
3	A novel technology for fabricating gratings of any chirp characteristics by design. *IEEE Photonics Technology Letters*, **2003**, 15, 712-714	2.2	2
2	Fluidic adaptive lens with high focal length tunability. *Applied Physics Letters*, **2003**, 82, 3171-3172	3.4	284

1	Microspherical surfaces with predefined focal lengths fabricated using microfluidic capillaries. *Applied Physics Letters*, **2003**, 83, 5563-5565	3.4	6