

# Luke P Lee

## List of Publications by Year in descending order

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93  
papers

6,013  
citations

76196

40  
h-index

74018

75  
g-index

96  
all docs

96  
docs citations

96  
times ranked

8617  
citing authors

#	ARTICLE	IF	CITATIONS
1	Human iPSC-based Cardiac Microphysiological System For Drug Screening Applications. Scientific Reports, 2015, 5, 8883.	1.6	411
2	Optofluidic control using photothermal nanoparticles. Nature Materials, 2006, 5, 27-32.	13.3	312
3	Quantized plasmon quenching dips nanospectroscopy via plasmon resonance energy transfer. Nature Methods, 2007, 4, 1015-1017.	9.0	303
4	Inspirations from Biological Optics for Advanced Photonic Systems. Science, 2005, 310, 1148-1150.	6.0	287
5	Self-powered integrated microfluidic point-of-care low-cost enabling (SIMPLE) chip. Science Advances, 2017, 3, e1501645.	4.7	269
6	Selective and sensitive detection of metal ions by plasmonic resonance energy transfer-based nanospectroscopy. Nature Nanotechnology, 2009, 4, 742-746.	15.6	236
7	Reagentless mechanical cell lysis by nanoscale barbs in microchannels for sample preparation. Lab on A Chip, 2003, 3, 287.	3.1	224
8	Plasmon Resonance Energy Transfer (PRET)-based Molecular Imaging of Cytochrome <i>c</i> in Living Cells. Nano Letters, 2009, 9, 85-90.	4.5	192
9	Ultrafast photonic PCR. Light: Science and Applications, 2015, 4, e280-e280.	7.7	176
10	Clemizole and modulators of serotonin signalling suppress seizures in Dravet syndrome. Brain, 2017, 140, aww342.	3.7	174
11	Exosome detection via the ultrafast-isolation system: EXODUS. Nature Methods, 2021, 18, 212-218.	9.0	157
12	Quantitative imaging of single mRNA splice variants in living cells. Nature Nanotechnology, 2014, 9, 474-480.	15.6	148
13	Integrated microfluidic tmRNA purification and real-time NASBA device for molecular diagnostics. Lab on A Chip, 2008, 8, 2071.	3.1	135
14	Bioinspired Fabrication of High-Quality 3D Artificial Compound Eyes by Voxel-Modulation Femtosecond Laser Writing for Distortion-Free Wide-Field-of-View Imaging. Advanced Optical Materials, 2014, 2, 751-758.	3.6	134
15	Opposing intrinsic temporal gradients guide neural stem cell production of varied neuronal fates. Science, 2015, 350, 317-320.	6.0	130
16	Bioinspired Nanocorals with Decoupled Cellular Targeting and Sensing Functionality. Small, 2010, 6, 503-507.	5.2	127
17	Optical Properties of the Crescent-Shaped Nanohole Antenna. Nano Letters, 2009, 9, 1956-1961.	4.5	123
18	Near-Infrared SERS Nanoprobes with Plasmonic Au/Ag Hollow-Shell Assemblies for In Vivo Multiplex Detection. Advanced Functional Materials, 2013, 23, 3719-3727.	7.8	121

#	ARTICLE	IF	CITATIONS
19	Input-Specific Plasticity and Homeostasis at the Drosophila Larval Neuromuscular Junction. <i>Neuron</i> , 2017, 93, 1388-1404.e10.	3.8	118
20	Optical MEMS: From Micromirrors to Complex Systems. <i>Journal of Microelectromechanical Systems</i> , 2014, 23, 517-538.	1.7	115
21	Nanoplasmonic optical antennas for life sciences and medicine. <i>Nature Reviews Materials</i> , 2018, 3, 228-243.	23.3	106
22	Integrated microfluidic cell culture and lysis on a chip. <i>Lab on A Chip</i> , 2007, 7, 1689.	3.1	97
23	On-chip cell lysis by local hydroxide generation. <i>Lab on A Chip</i> , 2005, 5, 171.	3.1	92
24	Molecular profiling of single circulating tumor cells from lung cancer patients. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, E8379-E8386.	3.3	90
25	Preclinical Animal Models for Dravet Syndrome: Seizure Phenotypes, Comorbidities and Drug Screening. <i>Frontiers in Pharmacology</i> , 2018, 9, 573.	1.6	77
26	A Handheld Point-of-Care Genomic Diagnostic System. <i>PLoS ONE</i> , 2013, 8, e70266.	1.1	77
27	Hemolysis-free blood plasma separation. <i>Lab on A Chip</i> , 2014, 14, 2287-2292.	3.1	74
28	Harmonic acoustics for dynamic and selective particle manipulation. <i>Nature Materials</i> , 2022, 21, 540-546.	13.3	66
29	Microphysiological Analysis Platform of Pancreatic Islet $\beta$ -Cell Spheroids. <i>Advanced Healthcare Materials</i> , 2018, 7, 1701111.	3.9	60
30	A Novel Long-term, Multi-Channel and Non-invasive Electrophysiology Platform for Zebrafish. <i>Scientific Reports</i> , 2016, 6, 28248.	1.6	59
31	Nanoplasmonic On-Chip PCR for Rapid Precision Molecular Diagnostics. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 12533-12540.	4.0	57
32	Plasmon tuning and local field enhancement maximization of the nanocrescent. <i>Nanotechnology</i> , 2008, 19, 275201.	1.3	56
33	General and programmable synthesis of hybrid liposome/metal nanoparticles. <i>Science Advances</i> , 2016, 2, e1601838.	4.7	55
34	Bubble-free rapid microfluidic PCR. <i>Biosensors and Bioelectronics</i> , 2019, 126, 725-733.	5.3	53
35	Gold nanocrystals with DNA-directed morphologies. <i>Nature Communications</i> , 2016, 7, 12873.	5.8	52
36	Bimetallic nanopetals for thousand-fold fluorescence enhancements. <i>Applied Physics Letters</i> , 2010, 97, .	1.5	49

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37	Discriminating cellular heterogeneity using microwell-based RNA cytometry. <i>Nature Communications</i> , 2014, 5, 3451.	5.8	49
38	Transcriptomes of lineage-specific <i>Drosophila</i> neuroblasts profiled via genetic targeting and robotic sorting. <i>Development (Cambridge)</i> , 2015, 143, 411-21.	1.2	49
39	Single-Step LRET Aptasensor for Rapid Mycotoxin Detection. <i>Analytical Chemistry</i> , 2018, 90, 716-722.	3.2	49
40	Human mini-brain models. <i>Nature Biomedical Engineering</i> , 2021, 5, 11-25.	11.6	49
41	The genetic source tracking of human urinary exosomes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	49
42	Nanophotonic Cell Lysis and Polymerase Chain Reaction with Gravity-Driven Cell Enrichment for Rapid Detection of Pathogens. <i>ACS Nano</i> , 2019, 13, 13866-13874.	7.3	44
43	Rapid Optical Cavity PCR. <i>Advanced Healthcare Materials</i> , 2016, 5, 167-174.	3.9	41
44	Engineering in Medicine To Address the Challenge of Cancer Drug Resistance: From Micro- and Nanotechnologies to Computational and Mathematical Modeling. <i>Chemical Reviews</i> , 2021, 121, 3352-3389.	23.0	41
45	Ultrasensitive and Selective Field-Effect Transistor-Based Biosensor Created by Rings of MoS <sub>2</sub> Nanopores. <i>ACS Nano</i> , 2022, 16, 1826-1835.	7.3	40
46	Gold nanocap-supported upconversion nanoparticles for fabrication of a solid-phase aptasensor to detect ochratoxin A. <i>Biosensors and Bioelectronics</i> , 2020, 150, 111885.	5.3	39
47	Droplet Array-Based 3D Coculture System for High-Throughput Tumor Angiogenesis Assay. <i>Analytical Chemistry</i> , 2018, 90, 3253-3261.	3.2	38
48	Quantum biological tunnel junction for electron transfer imaging in live cells. <i>Nature Communications</i> , 2019, 10, 3245.	5.8	38
49	Bioinspired optical antennas: gold plant viruses. <i>Light: Science and Applications</i> , 2015, 4, e267-e267.	7.7	30
50	Reversible Self-Actuated Thermo-Responsive Pore Membrane. <i>Scientific Reports</i> , 2016, 6, 39402.	1.6	28
51	Integrated Point-of-Care Molecular Diagnostic Devices for Infectious Diseases. <i>Accounts of Chemical Research</i> , 2021, 54, 4107-4119.	7.6	27
52	Near-Infrared Light-Assisted Photothermal Polymerization for Transdermal Hydrogelation and Cell Delivery. <i>Advanced Healthcare Materials</i> , 2016, 5, 1638-1645.	3.9	25
53	Plasmonic bacteria on a nanoporous mirror via hydrodynamic trapping for rapid identification of waterborne pathogens. <i>Light: Science and Applications</i> , 2018, 7, 68.	7.7	25
54	A sound approach to advancing healthcare systems: the future of biomedical acoustics. <i>Nature Communications</i> , 2022, 13, .	5.8	25

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55	Asymmetric Nanocrescent Antenna on Upconversion Nanocrystal. <i>Nano Letters</i> , 2017, 17, 6583-6590.	4.5	24
56	Non-invasive microfluidic gap junction assay. <i>Integrative Biology (United Kingdom)</i> , 2010, 2, 130.	0.6	23
57	Multifunctional Cellular Targeting, Molecular Delivery, and Imaging by Integrated Mesoporous-Silica with Optical Nanocrescent Antenna: MONA. <i>ACS Nano</i> , 2022, 16, 2013-2023.	7.3	23
58	Critical review on where CRISPR meets molecular diagnostics. <i>Progress in Biomedical Engineering</i> , 2021, 3, 012001.	2.8	20
59	Vacuum soft lithography to direct neuronal polarization. <i>Soft Matter</i> , 2011, 7, 343-347.	1.2	18
60	Point-of-care diagnostic tests for tuberculosis disease. <i>Science Translational Medicine</i> , 2022, 14, eabj4124.	5.8	18
61	Label-free density difference amplification-based cell sorting. <i>Biomicrofluidics</i> , 2014, 8, 064108.	1.2	16
62	A micropatterning approach for imaging dynamic Cx43 trafficking to cell-cell borders. <i>FEBS Letters</i> , 2014, 588, 1439-1445.	1.3	16
63	Real-time investigation of cytochrome c release profiles in living neuronal cells undergoing amyloid beta oligomer-induced apoptosis. <i>Nanoscale</i> , 2015, 7, 10340-10343.	2.8	14
64	Gut-Kidney Axis on Chip for Studying Effects of Antibiotics on Risk of Hemolytic Uremic Syndrome by Shiga Toxin-Producing <i>Escherichia coli</i> . <i>Toxins</i> , 2021, 13, 775.	1.5	14
65	Quantitative and ultrasensitive in situ immunoassay technology for SARS-CoV-2 detection in saliva. <i>Science Advances</i> , 2022, 8, .	4.7	14
66	Uncovering the Metabolic Origin of Aspartate for Tumor Growth Using an Integrated Molecular Deactivator. <i>Nano Letters</i> , 2021, 21, 778-784.	4.5	13
67	Nanogap Capacitors for Label Free DNA Analysis. <i>Materials Research Society Symposia Proceedings</i> , 2002, 729, 4101.	0.1	11
68	Reactive deposition of nano-films in deep polymeric microcavities. <i>Lab on A Chip</i> , 2012, 12, 4877.	3.1	11
69	Electropolymerized-molecularly imprinted polymers (E-MIPS) as sensing elements for the detection of dengue infection. <i>Analytical and Bioanalytical Chemistry</i> , 2022, 414, 1347-1357.	1.9	11
70	Fabrication of a large, ordered, three-dimensional nanocup array. <i>Applied Physics Letters</i> , 2012, 101, 081109.	1.5	9
71	Artificially Preserving Microfluidic Chips for Visualization and Permanent Display. <i>Small</i> , 2020, 16, e2002035.	5.2	9
72	Nanotherapeutic approaches to overcome distinct drug resistance barriers in models of breast cancer. <i>Nanophotonics</i> , 2021, 10, 3063-3073.	2.9	9

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73	Advances in Biosensor Technologies for Infection Diagnostics. Accounts of Chemical Research, 2022, 55, 121-122.	7.6	9
74	Simultaneous imaging of ionic conductivity and morphology of a microfluidic system. Journal of Applied Physics, 2003, 93, 10134-10136.	1.1	5
75	Current nano/biotechnological approaches in amyotrophic lateral sclerosis. Biomedical Engineering Letters, 2013, 3, 209-222.	2.1	5
76	Microphysiological Analytic Platforms (MAPs): Precision Organs on Chip. Advanced Healthcare Materials, 2018, 7, 1701488.	3.9	5
77	Nanostructured Electrodes for Improved Neural Recording. Materials Research Society Symposia Proceedings, 2002, 729, 4111.	0.1	4
78	Batch Fabrication of Nanopillars for Autonomous Nanofluidic SERS Arrays. Materials Research Society Symposia Proceedings, 2002, 729, 491.	0.1	4
79	Synthesis method of asymmetric gold particles. Scientific Reports, 2017, 7, 2921.	1.6	3
80	Adhesion-Based Capture and Separation of Cells for Microfluidic Devices. Materials Research Society Symposia Proceedings, 2002, 729, 451.	0.1	2
81	Nanoprobes: Near-Infrared SERS Nanoprobes with Plasmonic Au/Ag Hollow Shell Assemblies for In Vivo Multiplex Detection (Adv. Funct. Mater. 30/2013). Advanced Functional Materials, 2013, 23, 3828-3828.	7.8	2
82	All-optical microfluidic circuit for biochemical and cellular analysis powered by photoactive nanoparticles. , 2006, , .		1
83	Bionano science and technology for innovative medicine. , 2010, , .		1
84	S1c1-3 Soft-state Biological ASICs and Nanofluidic SERS for Quantitative Systems Biology(S1-c1:) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	0.0	0
85	Hybrid integrated platform of PDMS microfluidics and Silica Capillary for effective CE and ESI-MS coupling. , 2009, , .		0
86	Satellite nanoscope and cellular BioASICs for quantitative biomedicine. , 2009, 2009, 4582-5.		0
87	Nanobiophotonics and Bioasics for Biomedical Innovations. , 2009, , .		0
88	Single Cell Analysis for Quantitative Systems Biology. , 0, , 135-160.		0
89	Plasmonics: The Effect of Thermal Gradients in SERS Spectroscopy (Small 23/2010). Small, 2010, 6, 2622-2622.	5.2	0
90	Special issue on nano/biotechnology. Biomedical Engineering Letters, 2013, 3, 199-200.	2.1	0

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91	A Tribute to Professor Kahpâ€Yang Suh (1972 â€“ 2013). Advanced Healthcare Materials, 2016, 5, 8-9.	3.9	0
92	Quantum bionanophotonics in life science and medicine. , 2016, , .		0
93	Mechanobiological Stimulations of Algal Cells for Energy Harvesting. Advanced Theory and Simulations, 2021, 4, 2000281.	1.3	0