Raymond H W Lam

List of Publications by Year
in descending order

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74 papers	2,379 citations	257101 24 h-index	205818 48 g-index
78 all docs	78 docs citations	78 times ranked	3928 citing authors

#	Article	IF	Citations
1	Nanotopography Influences Adhesion, Spreading, and Self-Renewal of Human Embryonic Stem Cells. ACS Nano, 2012, 6, 4094-4103.	7.3	353
2	Nanoroughened Surfaces for Efficient Capture of Circulating Tumor Cells without Using Capture Antibodies. ACS Nano, 2013, 7, 566-575.	7.3	220
3	Hacking macrophage-associated immunosuppression for regulating glioblastoma angiogenesis. Biomaterials, 2018, 161, 164-178.	5.7	184
4	Photolithographic surface micromachining of polydimethylsiloxane (PDMS). Lab on A Chip, 2012, 12, 391-395.	3.1	131
5	Culturing Aerobic and Anaerobic Bacteria and Mammalian Cells with a Microfluidic Differential Oxygenator. Analytical Chemistry, 2009, 81, 5918-5924.	3.2	102
6	Mechanics Regulates Fate Decisions of Human Embryonic Stem Cells. PLoS ONE, 2012, 7, e37178.	1.1	102
7	Effect of triethanolamine on cement hydration toward initial setting time. Construction and Building Materials, 2017, 141, 94-103.	3.2	101
8	A silicone-based stretchable micropost array membrane for monitoring live-cell subcellular cytoskeletal response. Lab on A Chip, 2012, 12, 731-740.	3.1	89
9	Molecular dynamics simulations on adhesion of epoxy-silica interface in salt environment. Composites Part B: Engineering, 2017, 131, 165-172.	5.9	88
10	Elastomeric microposts integrated into microfluidics for flow-mediated endothelial mechanotransduction analysis. Lab on A Chip, 2012, 12, 1865.	3.1	76
11	Live-cell subcellular measurement of cell stiffness using a microengineered stretchable micropost array membrane. Integrative Biology (United Kingdom), 2012, 4, 1289.	0.6	56
12	A simplified sheathless cell separation approach using combined gravitational-sedimentation-based prefocusing and dielectrophoretic separation. Lab on A Chip, 2018, 18, 1521-1532.	3.1	50
13	Effects of 4-methylbenzylidene camphor (4-MBC) on neuronal and muscular development in zebrafish (Danio rerio) embryos. Environmental Science and Pollution Research, 2016, 23, 8275-8285.	2.7	49
14	Mathematical analysis of oxygen transfer through polydimethylsiloxane membrane between double layers of cell culture channel and gas chamber in microfluidic oxygenator. Microfluidics and Nanofluidics, 2013, 15, 285-296.	1.0	48
15	Surfaceâ€Micromachined Microfiltration Membranes for Efficient Isolation and Functional Immunophenotyping of Subpopulations of Immune Cells. Advanced Healthcare Materials, 2013, 2, 965-975.	3.9	43
16	Building a better cell trap: Applying Lagrangian modeling to the design of microfluidic devices for cell biology. Journal of Applied Physics, 2008, 103, 044701.	1.1	41
17	A fluorescent microbead-based microfluidic immunoassay chip for immune cell cytokine secretion quantification. Lab on A Chip, 2018, 18, 522-531.	3.1	41
18	Multiparametric Biomechanical and Biochemical Phenotypic Profiling of Single Cancer Cells Using an Elasticity Microcytometer. Small, 2016, 12, 2300-2311.	5.2	36

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19	High-throughput dental biofilm growth analysis for multiparametric microenvironmental biochemical conditions using microfluidics. Lab on A Chip, 2016, 16, 1652-1662.	3.1	32
20	Dynamics of Microvalve Operations in Integrated Microfluidics. Micromachines, 2014, 5, 50-65.	1.4	31
21	Nanowire Magnetoscope Reveals a Cellular Torque with Leftâ€“Right Bias. ACS Nano, 2016, 10, 7409-7417.	7.3	29
22	A microfluidic device for isolation and characterization of transendothelial migrating cancer cells. Biomicrofluidics, 2017, 11, 014105.	1.2	29
23	Revealing elasticity of largely deformed cells flowing along confining microchannels. RSC Advances, 2018, 8, 1030-1038.	1.7	29
24	Deterministic sequential isolation of floating cancer cells under continuous flow. Lab on A Chip, 2016, 16, 2813-2819.	3.1	27
25	Proteinâ€“Substrate Adhesion in Microcontact Printing Regulates Cell Behavior. Langmuir, 2018, 34, 1750-1759.	1.6	26
26	Biofluidic Random Laser Cytometer for Biophysical Phenotyping of Cell Suspensions. ACS Sensors, 2019, 4, 832-840.	4.0	26
27	Mechanics designs-performance relationships in epidermal triboelectric nanogenerators. Nano Energy, 2020, 76, 105017.	8.2	24
28	Biophysical Phenotyping and Modulation of ALDH+ Inflammatory Breast Cancer Stemâ€Like Cells. Small, 2019, 15, e1802891.	5.2	21
29	Microengineered Conductive Elastomeric Electrodes for Long-Term Electrophysiological Measurements with Consistent Impedance under Stretch. Sensors, 2015, 15, 26906-26920.	2.1	18
30	Preferred cell alignment along concave microgrooves. RSC Advances, 2017, 7, 6788-6794.	1.7	18
31	Microfluidic Viscometer Using a Suspending Micromembrane for Measurement of Biosamples. Micromachines, 2020, 11, 934.	1.4	18
32	Characterization of viscoelastic properties of normal and cancerous human breast cells using a confining microchannel. Microfluidics and Nanofluidics, 2017, 21, 1.	1.0	17
33	A Digitally Controllable Polymer-Based Microfluidic Mixing Module Array. Micromachines, 2012, 3, 279-294.	1.4	16
34	Chemical Technologies for Modern Concrete Production. Procedia Engineering, 2017, 172, 1270-1277.	1.2	16
35	Label-free biosensor of phagocytosis for diagnosing bacterial infections. Biosensors and Bioelectronics, 2021, 191, 113412.	5.3	16
36	A two-chip acoustofluidic particle manipulation platform with a detachable and reusable surface acoustic wave device. Analyst, The, 2020, 145, 7752-7758.	1.7	15

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37	Investigation of Drug Cocktail Effects on Cancer Cell-Spheroids Using a Microfluidic Drug-Screening Assay. Micromachines, 2017, 8, 167.	1.4	13
38	Reduction in cement content of normal strength concrete with used engine oil (UEO) as chemical admixture. Construction and Building Materials, 2020, 261, 119967.	3.2	13
39	Microfluidic long-term differential oxygenation for bacterial growth characteristics analyses. RSC Advances, 2014, 4, 16662-16673.	1.7	11
40	Substrate Stiffness Regulates the Development of Leftâ€“Right Asymmetry in Cell Orientation. ACS Applied Materials & Interfaces, 2016, 8, 17976-17986.	4.0	11
41	Nondestructive quantification of single-cell nuclear and cytoplasmic mechanical properties based on large whole-cell deformation. Lab on A Chip, 2020, 20, 4175-4185.	3.1	11
42	An In Silico Glioblastoma Microenvironment Model Dissects the Immunological Mechanisms of Resistance to PDâ€1 Checkpoint Blockade Immunotherapy. Small Methods, 2021, 5, 2100197.	4.6	10
43	Antibody-coated microstructures for selective isolation of immune cells in blood. Lab on A Chip, 2020, 20, 1072-1082.	3.1	9
44	Adhesion Strengthening Mechanism of Carbon Nanotube-Embedded Epoxy Composites: A Fracture-Based Approach. ACS Applied Materials & Interfaces, 2022, 14, 7221-7229.	4.0	9
45	Mixing in an enclosed microfluidic chamber through moving boundary motions. Microfluidics and Nanofluidics, 2015, 19, 711-720.	1.0	8
46	Elasticity-Modulated Microbeads for Classification of Floating Normal and Cancer Cells Using Confining Microchannels. ACS Biomaterials Science and Engineering, 2019, 5, 3889-3898.	2.6	8
47	Gravitational sedimentation-based approach for ultra-simple and flexible cell patterning coculture on microfluidic device. Biofabrication, 2020, 12, 035005.	3.7	7
48	Acoustically Driven Manipulation of Microparticles and Cells on a Detachable Surface Micromachined Silicon Chip. IEEE Sensors Journal, 2021, 21, 11999-12008.	2.4	7
49	Early Committed Clockwise Cell Chirality Upregulates Adipogenic Differentiation of Mesenchymal Stem Cells. Advanced Biology, 2020, 4, 2000161.	3.0	6
50	Atomistic Prediction of Nanomaterials: Introduction to Molecular Dynamics Simulation and a Case Study of Graphene Wettability.. IEEE Nanotechnology Magazine, 2012, 6, 8-13.	0.9	5
51	Piezoelectricity of Portland cement hydrates cured under the influence of electric field. , 2016, , .		5
52	Low-cost laser-cut patterned chips for acoustic concentration of micro- to nanoparticles and cells by operating over a wide frequency range. Analyst, The, 2021, 146, 3280-3288.	1.7	5
53	Automated Long-Term Monitoring of Parallel Microfluidic Operations Applying a Machine Vision-Assisted Positioning Method. Scientific World Journal, The, 2014, 2014, 1-14.	0.8	4
54	High-throughput deterministic pairing and coculturing of single cells in a microwell array using combined hydrodynamic and recirculation flow captures. Biomicrofluidics, 2021, 15, 054103.	1.2	4

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55	Microfluidic implementation of functional cytometric microbeads for improved multiplexed cytokine quantification. Biomicrofluidics, 2018, 12, 044112.	1.2	3
56	Spreading and Migration of Nasopharyngeal Normal and Cancer Cells on Microgratings. ACS Applied Bio Materials, 2021, 4, 3224-3231.	2.3	3
57	Influence of micro-scale substrate curvature on subcellular behaviors of vascular cells. , 2016, , .		2
58	Reusable acoustic tweezers enable 2D patterning of microparticles in microchamber on a disposable silicon chip superstrate. , 2020, , .		2
59	A Narrow Straight Microchannel Array for Analysis of Transiting Speed of Floating Cancer Cells. Micromachines, 2022, 13, 183.	1.4	2
60	Microfluidic biosensing of viscoelastic properties of normal and cancerous human breast cells. , 2017, , .		1
61	A Microfluidic Oxygenator for Biological Cell Culture. , 2007, , .		0
62	Measurement of heterogeneity in subcellular live-cell rigidity using a stretchable micropost array platform. , 2012, , .		0
63	Investigation of Mechanoresponsive Behaviors of Human Embryonic Stem Cells Using Microfabricated Elastomeric Post Arrays. , 2012, , .		0
64	A microfluidic long-term bacteria culture device with controllable humidity and dissolved oxygen. , 2013, , .		0
65	Large field-of-view super-resolution imaging of endo-cellular structures through micro-beads array. , 2015, , .		0
66	Measurement of alpha radiation based on amperometric activity of bacteria focused electrokinectically in microfluidics. , 2016, , .		0
67	Cell behaviors mediated by the scale of extracellular matrix micro-islands. , 2016, , .		0
68	Profiling multiple cytokine levels in a mixing-enhanced microfluidic immunoassay. , 2017, , .		0
69	Characterization of Cytoskeletal Pore Size Using Quantum Dots. IEEE Nanotechnology Magazine, 2018, 17, 398-401.	1.1	0
70	Single-Bacteria Isolation and Selective Extraction Based on Microfluidic Emulsion and Sequential Micro-Sieves. , 2019, , .		0
71	Calcium-Alginate Microbeads as Cell Deformability Sensors. , 2019, , .		0
72	Nasopharyngeal Cell Spreading and Migration Characteristics on Microengineered Gratings. , 2019, , .		0

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73	Micromixing-Enhanced Biosensing of Radioactivity Using Modified Deinococcus Radiodurans in Microfluidics. , 2019, , .		0
74	Cell Chirality: Early Committed Clockwise Cell Chirality Upregulates Adipogenic Differentiation of Mesenchymal Stem Cells (Adv. Biosys. 10/2020). Advanced Biology, 2020, 4, 2070103.	3.0	0