David Inglis

List of Publications by Year
in descending order

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53 papers	2,869 citations	304743 22 h-index	182427 51 g-index
55 all docs	55 docs citations	55 times ranked	3249 citing authors

#	Article	IF	Citations
1	Deterministic hydrodynamics: Taking blood apart. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 14779-14784.	7.1	540
2	Critical particle size for fractionation by deterministic lateral displacement. Lab on A Chip, 2006, 6, 655.	6.0	334
3	Continuous microfluidic immunomagnetic cell separation. Applied Physics Letters, 2004, 85, 5093-5095.	3.3	321
4	Fiveâ€Nanometer Diamond with Luminescent Nitrogenâ€Vacancy Defect Centers. Small, 2009, 5, 1649-1653.	10.0	156
5	Microfluidic high gradient magnetic cell separation. Journal of Applied Physics, 2006, 99, 08K101.	2.5	112
6	Crossing microfluidic streamlines to lyse, label and wash cells. Lab on A Chip, 2008, 8, 1448.	6.0	101
7	Deterministic Lateral Displacement: Challenges and Perspectives. ACS Nano, 2020, 14, 10784-10795.	14.6	97
8	3D printed mould-based graphite/PDMS sensor for low-force applications. Sensors and Actuators A: Physical, 2018, 280, 525-534.	4.1	87
9	Hydrodynamic metamaterials: Microfabricated arrays to steer, refract, and focus streams of biomaterials. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 7434-7438.	7.1	86
10	Efficient microfluidic particle separation arrays. Applied Physics Letters, 2009, 94, .	3.3	84
11	Focusing of sub-micrometer particles in microfluidic devices. Lab on A Chip, 2020, 20, 35-53.	6.0	77
12	Scaling deterministic lateral displacement arrays for high throughput and dilution-free enrichment of leukocytes. Journal of Micromechanics and Microengineering, 2011, 21, 054024.	2.6	75
13	Quantitative non-invasive cell characterisation and discrimination based on multispectral autofluorescence features. Scientific Reports, 2016, 6, 23453.	3.3	73
14	Microfluidic device for label-free measurement of platelet activation. Lab on A Chip, 2008, 8, 925.	6.0	72
15	Highly accurate deterministic lateral displacement device and its application to purification of fungal spores. Biomicrofluidics, 2010, 4, .	2.4	69
16	Simultaneous Concentration and Separation of Proteins in a Nanochannel. Angewandte Chemie - International Edition, 2011, 50, 7546-7550.	13.8	66
17	Determining blood cell size using microfluidic hydrodynamics. Journal of Immunological Methods, 2008, 329, 151-156.	1.4	51
18	A method for reducing pressure-induced deformation in silicone microfluidics. Biomicrofluidics, 2010, 4, .	2.4	50

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19	Anisotropic permeability in deterministic lateral displacement arrays. Lab on A Chip, 2017, 17, 3318-3330.	6.0	37
20	Visible 532â€‰nm laser irradiation of human adipose tissueâ€derived stem cells: Effect on proliferation rates, mitochondria membrane potential and autofluorescence. Lasers in Surgery and Medicine, 2012, 44, 769-778.	2.1	33
21	Concentration gradient focusing and separation in a silica nanofluidic channel with a non-uniform electroosmotic flow. Lab on A Chip, 2014, 14, 3539-3549.	6.0	30
22	Nanochannel pH Gradient Electrofocusing of Proteins. Analytical Chemistry, 2013, 85, 7133-7138.	6.5	22
23	Stationary Chemical Gradients for Concentration Gradient-Based Separation and Focusing in Nanofluidic Channels. Langmuir, 2014, 30, 5337-5348.	3.5	22
24	Maximizing particle concentration in deterministic lateral displacement arrays. Biomicrofluidics, 2017, 11, 024121.	2.4	20
25	Manufacturing and wetting low-cost microfluidic cell separation devices. Biomicrofluidics, 2013, 7, 056501.	2.4	19
26	Deterministic Lateral Displacement: The Next-Generation CAR T-Cell Processing?. SLAS Technology, 2018, 23, 338-351.	1.9	19
27	Characterization of the Interaction between Heterodimeric Î±vÎ²6 Integrin and Urokinase Plasminogen Activator Receptor (uPAR) Using Functional Proteomics. Journal of Proteome Research, 2014, 13, 5956-5964.	3.7	18
28	A Review of Capillary Pressure Control Valves in Microfluidics. Biosensors, 2021, 11, 405.	4.7	18
29	A Nanoparticle-Based Affinity Sensor that Identifies and Selects Highly Cytokine-Secreting Cells. IScience, 2019, 20, 137-147.	4.1	17
30	IFN-Î³-induced signal-on fluorescence aptasensors: from hybridization chain reaction amplification to 3D optical fiber sensing interface towards a deployable device for cytokine sensing. Molecular Systems Design and Engineering, 2019, 4, 872-881.	3.4	17
31	Droplets for Sampling and Transport of Chemical Signals in Biosensing: A Review. Biosensors, 2019, 9, 80.	4.7	16
32	Isoelectric Focusing in a Silica Nanofluidic Channel: Effects of Electromigration and Electroosmosis. Analytical Chemistry, 2014, 86, 8711-8718.	6.5	15
33	Shape-based separation of drug-treated <i>Escherichia coli</i> using viscoelastic microfluidics. Lab on A Chip, 2022, 22, 2801-2809.	6.0	15
34	The fluidic resistance of an array of obstacles and a method for improving boundaries in deterministic lateral displacement arrays. Microfluidics and Nanofluidics, 2020, 24, 1.	2.2	12
35	A microfluidic needle for sampling and delivery of chemical signals by segmented flows. Applied Physics Letters, 2017, 111, 183702.	3.3	10
36	Comparing fusion bonding methods for glass substrates. Materials Research Express, 2018, 5, 085201.	1.6	10

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37	Stable thrombus formation on irradiated microvascular endothelial cells under pulsatile flow: Pre-testing annexin V-thrombin conjugate for treatment of brain arteriovenous malformations. Thrombosis Research, 2018, 167, 104-112.	1.7	9
38	Turn-On Fluorescence Aptasensor on Magnetic Nanobeads for Aflatoxin M1 Detection Based on an Exonuclease III-Assisted Signal Amplification Strategy. Nanomaterials, 2019, 9, 104.	4.1	9
39	A scalable approach for high throughput branch flow filtration. Lab on A Chip, 2013, 13, 1724.	6.0	8
40	Hydrodynamic particle focusing enhanced by femtosecond laser deep grooving at low Reynolds numbers. Scientific Reports, 2021, 11, 1652.	3.3	8
41	A mobility shift assay for DNA detection using nanochannel gradient electrophoresis. Electrophoresis, 2017, 38, 335-341.	2.4	6
42	Microfluidic Droplet Extraction by Hydrophilic Membrane. Micromachines, 2017, 8, 331.	2.9	4
43	Microfabricated needle for hydrogen peroxide detection. RSC Advances, 2019, 9, 18176-18181.	3.6	4
44	Printed circuit boards as platform for disposable lab-on-a-chip applications. Proceedings of SPIE, 2015, , .	0.8	3
45	Targeting of externalized Î±B-crystallin on irradiated endothelial cells with pro-thrombotic vascular targeting agents: Potential applications for brain arteriovenous malformations. Thrombosis Research, 2020, 189, 119-127.	1.7	3
46	Microfluidic Obstacle Arrays Induce Large Reversible Shape Change in Red Blood Cells. Micromachines, 2021, 12, 783.	2.9	1
47	Sidewall profiles in thick resist with direct image lithography. Journal of Micromechanics and Microengineering, 2021, 31, 107001.	2.6	1
48	Limits of Parabolic Flow Theory in Microfluidic Particle Separation: A Computational Study. , 2013, , .		1
49	Characterization of optofluidic devices for the sorting of sub-micrometer particles. Applied Optics, 2020, 59, 271.	1.8	1
50	Effect of process parameters on separation efficiency in a deterministic lateral displacement device. Journal of Chromatography A, 2022, 1678, 463295.	3.7	1
51	Jet Formation in Micro Post Arrays. Applied Mechanics and Materials, 0, 553, 367-372.	0.2	0
52	Non-invasive detection and monitoring of biochemistry in cells and tissues by decomposing autofluorescence. , 2016, , .		0
53	Nanochannel Gradient Separations. Methods in Molecular Biology, 2019, 1906, 125-132.	0.9	0