Bruno Le Pioufle

List of Publications by Year
in descending order

103	1,738	304743	302126
papers	citations	22 h-index	39 g-index

104	104	104	2144
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Bioimpedance single cell sensing of low and high density sickle erythrocytes using microfluidics. Biosensors and Bioelectronics: X, 2022, 10, 100140.	1.7	1
2	Focus on using nanopore technology for societal health, environmental, and energy challenges. Nano Research, 2022, 15, 9906-9920.	10.4	11
3	Oxidative stress activates red cell adhesion to laminin in sickle cell disease. Haematologica, 2021, 106, 2478-2488.	3.5	10
4	Electrorotation of single microalgae cells during lipid accumulation for assessing cellular dielectric properties and total lipid contents. Biosensors and Bioelectronics, 2021, 173, 112772.	10.1	7
5	Two-Dimensionally Arrayed Double-Layer Electrode Device Which Enables Reliable and High-Thoroughput Electrortation. , 2021, , .		1
6	A Microfluidic Device to Statistically Determine the Distribution of Sickle Red Cell Subpopulations Using Bioimpedance. , 2021, , .		0
7	A versatile microfluidic tool for the 3D culture of HepaRG cells seeded at various stages of differentiation. Scientific Reports, 2021, 11, 14075.	3.3	9
8	Selective target protein detection using a decorated nanopore into a microfluidic device. Biosensors and Bioelectronics, 2021, 183, 113195.	10.1	17
9	Electricity for Fluidics and Bio-Devices. Microtechnology and MEMS, 2020, , 235-308.	0.2	1
10	Characterization of red blood cell microcirculatory parameters using a bioimpedance microfluidic device. Scientific Reports, 2020, 10, 9869.	3.3	21
11	Impact of pulsed electric fields and mechanical compressions on the permeability and structure of Chlamydomonas reinhardtii cells. Scientific Reports, 2020, 10, 2668.	3.3	25
12	Brownian Motion and Large Electric Polarizabilities Facilitate Dielectrophoretic Capture of Subâ€200 nm Gold Nanoparticles in Water. ChemPhysChem, 2019, 20, 3354-3365.	2.1	7
13	Characterization of sequentially-staged cancer cells using electrorotation. PLoS ONE, 2019, 14, e0222289.	2.5	24
14	Inducing reversible or irreversible pores in Chlamydomonas reinhardtii with electroporation: Impact of treatment parameters. Algal Research, 2019, 37, 124-132.	4.6	31
15	Z-Axis Controllable Mille-Feuille Electrode Electrorotation Device Utilizing Levitation Effect. , 2019, , .		2
16	Reticulocyte and red blood cell deformation triggers specific phosphorylation events. Blood Advances, 2019, 3, 2653-2663.	5.2	13
17	Structural changes of Chlamydomonas reinhardtii cells during lipid enrichment and after solvent exposure. Data in Brief, 2018, 17, 1283-1287.	1.0	8
18	Understanding the mechanisms of lipid extraction from microalga Chlamydomonas reinhardtii after electrical field solicitations and mechanical stress within a microfluidic device. Bioresource Technology, 2018, 257, 129-136.	9.6	33

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19	Solid-State Nanopore Easy Chip Integration in a Cheap and Reusable Microfluidic Device for Ion Transport and Polymer Conformation Sensing. ACS Sensors, 2018, 3, 2129-2137.	7.8	21
20	From current trace to the understanding of confined media. European Physical Journal E, 2018, 41, 99.	1.6	4
21	A microfluidic approach to study the effect of mechanical stress on erythrocytes in sickle cell disease. Lab on A Chip, 2018, 18, 2975-2984.	6.0	32
22	SU-8 microchannels for live cell dielectrophoresis improvements. Microsystem Technologies, 2017, 23, 3901-3908.	2.0	6
23	Effects of biomolecules on the electrokinetics of colloidal nanoparticles in liquid suspension. , 2017, , .		0
24	Single Cell Electrical Characterization Techniques. , 2017, , 271-288.		2
25	Functionalized Solid-State Nanopore Integrated in a Reusable Microfluidic Device for a Better Stability and Nanoparticle Detection. ACS Applied Materials & Interfaces, 2017, 9, 41634-41640.	8.0	42
26	Effects of Poloxamer 188 on red blood cell membrane properties in sickle cell anaemia. British Journal of Haematology, 2016, 173, 145-149.	2.5	23
27	RF Characterization of Intracellular Microalgae Lipids. Procedia Engineering, 2016, 168, 1287-1290.	1.2	1
28	Nanoparticle Electrical Analysis and Detection with a Solid-state Nanopore in a Microfluidic Device. Procedia Engineering, 2016, 168, 1475-1478.	1.2	3
29	Electric pulses: a flexible tool to manipulate cytosolic calcium concentrations and generate spontaneous-like calcium oscillations in mesenchymal stem cells. Scientific Reports, 2016, 6, 32331.	3.3	20
30	Microdevice for studying the in situ permeabilization and characterization of Chlamydomonas reinhardtii in lipid accumulation phase. Algal Research, 2016, 16, 357-367.	4.6	13
31	Single Cell Electrical Characterization Techniques. , 2016, , 1-18.		1
32	The Electrorotation as a Tool to Monitor the Dielectric Properties of Spheroid During the Permeabilization. Journal of Membrane Biology, 2016, 249, 593-600.	2.1	11
33	A Microfluidic Device for the Real-Time Characterization of Lipid Producing Algae Cell Population Submitted to a Pulsed Electric Field. IFMBE Proceedings, 2016, , 409-413.	0.3	2
34	Electrorotation as a Versatile Tool to Estimate Dielectric Properties of Multi-scale Biological Samples: from Single Cell to Spheroid Analysis. IFMBE Proceedings, 2016, , 75-78.	0.3	3
35	Monitoring the permeabilization of a single cell in a microfluidic device, through the estimation of its dielectric properties based on combined dielectrophoresis and electrorotation in situ experiments. Electrophoresis, 2015, 36, 1115-1122.	2.4	26
36	Splenic Retention of Plasmodium falciparum Gametocytes To Block the Transmission of Malaria. Antimicrobial Agents and Chemotherapy, 2015, 59, 4206-4214.	3.2	24

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37	SU-8 microchannels for live cell dielectrophoresis improvements. , 2015, , .		2
38	Reproducing topography and roughness of osteoconductive biomaterials in a microfluidic device. Computer Methods in Biomechanics and Biomedical Engineering, 2015, 18, 2026-2027.	1.6	2
39	A biomimetic microfluidic chip to study the circulation and mechanical retention of red blood cells in the spleen. American Journal of Hematology, 2015, 90, 339-345.	4.1	65
40	Analysis of pulsed electric field effects on cellular tissue with Coleâ€“Cole model: Monitoring permeabilization under inhomogeneous electrical field with bioimpedance parameter variations. Innovative Food Science and Emerging Technologies, 2015, 29, 193-200.	5.6	18
41	A generic and label free method based on dielectrophoresis for the continuous separation of microorganism from whole blood samples. Sensors and Actuators B: Chemical, 2015, 212, 335-343.	7.8	35
42	MicrosystÃ¨me dÃ©diÃ© Ã lâ€™Ã©tude de la polarisation diÃ©lectrique de microparticules dans le cadre de formation master recherche : application au micropositionnement 3D de cellules par force de diÃ©lectrophorÃ¨se. J3eA, 2015, 14, 1007.	0.0	1
43	Effects of Poloxamer 188 on Red Blood Cells Membrane Properties in Sickle Cell Disease. Blood, 2015, 126, 2174-2174.	1.4	0
44	Detection of micro-beads by impedance spectroscopy: Towards a wholly integrated electronic device for biological cells applications. , 2014, , .		1
45	Low Temperature Irreversible Poly(DiMethyl) Siloxane Packaging of Silanized SU8 Microchannels: Characterization and Lab-on-Chip Application. Journal of Microelectromechanical Systems, 2014, 23, 1015-1024.	2.5	7
46	Manipulation and Optical Detection of Colloidal Functional Plasmonic Nanostructures in Microfluidic Systems. IEEE Journal of Selected Topics in Quantum Electronics, 2014, 20, 102-114.	2.9	3
47	How medium osmolarity influences dielectrophoretically assisted on-chip electrofusion. Bioelectrochemistry, 2014, 100, 27-35.	4.6	9
48	Micro-Fluidic Channel Integration on Thick-SOI LSI Device for Biological Application.. IEEJ Transactions on Sensors and Micromachines, 2014, 134, 320-325.	0.1	1
49	Micro-organism extraction from biological samples using DEP forces enhanced by osmotic shock. Lab on A Chip, 2013, 13, 901.	6.0	20
50	Insertion of Functional Proteins into Bilayer Lipid Membrane usingÂa Cell-Free Expression System. Biophysical Journal, 2013, 104, 548a.	0.5	0
51	Optical microscopy and spectroscopy of analyte-sensitive functionalized gold nanoparticles in microfluidic systems. Proceedings of SPIE, 2013, , .	0.8	7
52	Optimization of dielectrophoretic separation and concentration of pathogens in complex biological samples. Proceedings of SPIE, 2013, , .	0.8	0
53	Microarray of non-connected gold pads used as high density electric traps for parallelized pairing and fusion of cells. Biomicrofluidics, 2013, 7, 44101.	2.4	10
54	Study of the transmembrane potential distribution of cell pairs in a microfluidic device using polymer obstacles to initiate electrofusion. EPJ Applied Physics, 2013, 62, 11202.	0.7	2

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55	Activity monitoring of functional OprM using a biomimetic microfluidic device. Analyst, The, 2012, 137, 847.	3.5	13
56	Highâ€resolution analyses of cell fusion dynamics in a biochip. Electrophoresis, 2012, 33, 2508-2515.	2.4	3
57	A microfluidic device with removable packaging for the real time visualisation of intracellular effects of nanosecond electrical pulses on adherent cells. Lab on A Chip, 2012, 12, 4709.	6.0	16
58	Solvatochromic dissociation of non-covalent fluorescent organic nanoparticles upon cell internalization. Physical Chemistry Chemical Physics, 2011, 13, 13268.	2.8	31
59	Design and realization of a microfluidic device devoted to the application of ultra-short pulses of electrical field to living cells. Sensors and Actuators B: Chemical, 2011, 160, 1573-1580.	7.8	21
60	A microfluidic biochip for the nanoporation of living cells. Biosensors and Bioelectronics, 2011, 26, 4649-4655.	10.1	38
61	A high density microfluidic device for cell pairing and electrofusion. Procedia Engineering, 2010, 5, 49-52.	1.2	2
62	A rupture detection algorithm for the DNA translocation detection though biological nanopore. Procedia Engineering, 2010, 5, 796-799.	1.2	3
63	A technique to design complex 3D lab on a chip involving multilayered fluidics, embedded thick electrodes and hard packagingâ€"application to dielectrophoresis and electroporation of cells. Journal of Micromechanics and Microengineering, 2010, 20, 047001.	2.6	10
64	Nanomanipulation of Living Cells on a Chip Using Electric Field: General Concepts and Microdevices. , 2010, , .		1
65	Electro-optical imaging microscopy of dye doped lipid membrane. , 2009, , .		0
66	Multichannel Simultaneous Measurements of Single-Molecule Translocation in Î±-Hemolysin Nanopore Array. Analytical Chemistry, 2009, 81, 9866-9870.	6.5	103
67	Ninety-six-well planar lipid bilayer chip for ion channel recording Fabricated by hybrid stereolithography. Biomedical Microdevices, 2009, 11, 17-22.	2.8	40
68	Electro-Optical Imaging Microscopy of Dye-Doped Artificial Lipidic Membranes. Biophysical Journal, 2009, 97, 2913-2921.	0.5	13
69	Electro-Optical Imaging Microscopy of Dye Doped Lipid Bilayer. , 2009, , .		0
70	Assembly of CdSe/ZnS nanocrystals on microwires and nanowires for temperature sensing. Sensors and Actuators B: Chemical, 2008, 130, 175-180.	7.8	3
71	Lipid Bilayer Microarray for Parallel Recording of Transmembrane Ion Currents. Analytical Chemistry, 2008, 80, 328-332.	6.5	101
72	High-Throughput Single-Cell Electroporation Microchip with Three Dimensional Si Microelectrodes for Gene Transfection. , 2007, , .		0

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73	A Silicon-Based Single-Cell Electroporation Microchip for Gene Transfer. , 2006, , .		1
74	Constraining the connectivity of neuronal networks cultured on microelectrode arrays with microfluidic techniques: A step towards neuron-based functional chips. Biosensors and Bioelectronics, 2006, 21, 1093-1100.	10.1	126
75	Study of osteoblastic cells in a microfluidic environment. Biomaterials, 2006, 27, 586-595.	11.4	145
76	Vacuum casting to manufacture a plastic biochip for highly parallel cell transfection. Measurement Science and Technology, 2006, 17, 3134-3140.	2.6	12
77	Perfusion culture of mammalian cells in microfluidic environments for tissue engineering applicationsÂ. Houille Blanche, 2006, 92, 56-59.	0.3	0
78	Cell Cultures Over Nanoneedle Fields. Nanobiotechnology, 2005, 1, 389-394.	1.2	3
79	Biopuces pour le traitement de cellules vivantes : micromanipulation des cellules par voie Ã©lectrique ouÂmicrofluidique. Comptes Rendus Physique, 2004, 5, 589-596.	0.9	5
80	Micromanipulation de particules polarisables par diÃ©lectrophorÃ¨se. Revue Internationale De GÃ©nie Ã©lectrique, 2004, 7, 419-431.	0.0	0
81	Positioning living cells on a high-density electrode array by negative dielectrophoresis. Materials Science and Engineering C, 2003, 23, 597-603.	7.3	61
82	Techniques for patterning and guidance of primary culture neurons on micro-electrode arrays. Sensors and Actuators B: Chemical, 2002, 83, 15-21.	7.8	40
83	A Method for Micrometer Resolution Patterning of Primary Culture Neurons for SPM Analysis. Journal of Biochemistry, 2001, 130, 367-376.	1.7	24
84	Effect of the composition and thermal annealing on the transformation temperatures of sputtered TiNi shape memory alloy thin films. Thin Solid Films, 2001, 401, 52-59.	1.8	85
85	Cell Placement and Neural Guidance Using a Three-Dimensional Microfluidic Array. Japanese Journal of Applied Physics, 2001, 40, 5485-5490.	1.5	29
86	<title>Near-field imaging of neurotransmitter release and uptake in patterned neuron networks</title>. , 2000, , .		0
87	Living cells captured on a bio-microsystem devoted to DNA injection. Materials Science and Engineering C, 2000, 12, 77-81.	7.3	19
88	Characterization of Sputtered TiNi Shape Memory Alloy Thin Films. Japanese Journal of Applied Physics, 1999, 38, L1547-L1549.	1.5	6
89	<title>Shape memory alloys for micromembrane actuation</title>. , 1999, 3825, 63.		0
90	COMPARISON OF CONTROL STRATEGIES TO MINIMIZE THE TORQUE RIPPLE OF A SWITCHED RELUCTANCE MACHINE. Electric Power Components and Systems, 1997, 25, 1103-1118.	0.1	9

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91	Experimental nonlinear torque control of a permanent-magnet synchronous motor using saliency. IEEE Transactions on Industrial Electronics, 1997, 44, 680-687.	7.9	69
92	ModÃ©lisation et commande non linÃ©aire en couple d'une machine Ã rÃ©luctance variable Ã double saillance. Journal De Physique III, 1996, 6, 55-75.	0.3	2
93	Optimization of control parameters by Newton's algorithm using sensitivity functions: application to the variable frequency DC-DC converter. , 1994, , .		0
94	Nonlinear control of a variable frequency DC-DC converter. , 1994, , .		2
95	COMPARISON OF SPEED NONLINEAR CONTROL STRATEGIES FOR THE SYNCHRONOUS SERVOMOTOR. Electric Power Components and Systems, 1993, 21, 151-169.	0.1	36
96	Commande non linÃ©aire en vitesse d'un servomoteur synchrone avec calcul de trajectoire et estimation du couple rÃ©sistant. Journal De Physique III, 1992, 2, 1905-1924.	0.3	1
97	A robust total compensation algorithm for the torque control of a synchronous servomotor. Journal De Physique III, 1992, 2, 129-144.	0.3	3
98	Application des commandes non linÃ©aires pour la rÃ©gulation en vitesse ou en position de la machine synchrone autopilotÃ©e. Revue De Physique AppliquÃ©e, 1990, 25, 517-526.	0.4	14
99	Catching and attaching cells using an array of microholes. , 0, , .		5
100	Design of biochip microelectrode arrays for cell arrangement. , 0, , .		3
101	Surface Engineering of Microfluidic Systems for Cellular Biochips. , 0, , .		0
102	Co-culture of cells in PDMS Microsystem for Sensitized Artificial Skin. , 0, , .		2
103	Investigation of Human Hepatoma Cell Line in Microfluidic Devices. , 0, , .		0