

Hywel Morgan

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/9503504/hywel-morgan-publications-by-year.pdf>

Version: 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

249
papers

13,173
citations

60
h-index

106
g-index

271
ext. papers

14,785
ext. citations

4.8
avg, IF

6.57
L-index

#	Paper	IF	Citations
249	Wall Repulsion of Charged Colloidal Particles during Electrophoresis in Microfluidic Channels.. <i>Physical Review Letters</i> , 2022 , 128, 074501	7.4	0
248	Discrete choice experiment exploring women's preferences in a novel device designed to monitor the womb environment and improve our understanding of reproductive disorders.. <i>BMJ Open</i> , 2022 , 12, e058419	3	
247	Short communication: A simple and accurate method of measuring the zeta-potential of microfluidic channels. <i>Electrophoresis</i> , 2021 ,	3.6	1
246	Powered Respirators Are Effective, Sustainable, and Cost-Effective Personal Protective Equipment for SARS-CoV-2.. <i>Frontiers in Medical Technology</i> , 2021 , 3, 729658	1.9	1
245	Concentration-Polarization Electroosmosis near Insulating Constrictions within Microfluidic Channels. <i>Analytical Chemistry</i> , 2021 , 93, 14667-14674	7.8	0
244	A Personal Respirator to Improve Protection for Healthcare Workers Treating COVID-19 (PeRSo).. <i>Frontiers in Medical Technology</i> , 2021 , 3, 664259	1.9	1
243	Stationary Electro-osmotic Flow Driven by ac Fields around Insulators. <i>Physical Review Applied</i> , 2021 , 15,	4.3	8
242	Stationary electro-osmotic flow driven by AC fields around charged dielectric spheres. <i>Journal of Fluid Mechanics</i> , 2021 , 924,	3.7	4
241	Personal respirators for population level control of the COVID19 pandemic. <i>Journal of Infection</i> , 2020 , 81, 318-356	18.9	44
240	Electrokinetic biased deterministic lateral displacement: scaling analysis and simulations. <i>Journal of Chromatography A</i> , 2020 , 1623, 461151	4.5	8
239	High-Speed Single-Cell Dielectric Spectroscopy. <i>ACS Sensors</i> , 2020 , 5, 423-430	9.2	40
238	Development of a rapid phenotypic test on a microfluidic device for carbapenemase detection using the chromogenic compound nitrocefim. <i>Diagnostic Microbiology and Infectious Disease</i> , 2020 , 96, 114926	2.9	0
237	A fast impedance-based antimicrobial susceptibility test. <i>Nature Communications</i> , 2020 , 11, 5328	17.4	38
236	Time-resolved microwell cell-pairing array reveals multiple T cell activation profiles. <i>Lab on A Chip</i> , 2020 , 20, 3772-3783	7.2	5
235	Label-free enrichment of primary human skeletal progenitor cells using deterministic lateral displacement. <i>Lab on A Chip</i> , 2019 , 19, 513-523	7.2	28
234	Image-based sorting and negative dielectrophoresis for high purity cell and particle separation. <i>Electrophoresis</i> , 2019 , 40, 2718-2727	3.6	18
233	AC electrokinetic biased deterministic lateral displacement for tunable particle separation. <i>Lab on A Chip</i> , 2019 , 19, 1386-1396	7.2	28

232	Modular Pressure and Flow Rate-Balanced Microfluidic Serial Dilution Networks for Miniaturised Point-of-Care Diagnostic Platforms. <i>Sensors</i> , 2019 , 19,	3.8	1
231	Combining DC and AC electric fields with deterministic lateral displacement for micro- and nano-particle separation. <i>Biomicrofluidics</i> , 2019 , 13, 054110	3.2	13
230	Sample pre-concentration on a digital microfluidic platform for rapid AMR detection in urine. <i>Lab on A Chip</i> , 2018 , 19, 168-177	7.2	10
229	In vivo oxygen, temperature and pH dynamics in the female reproductive tract and their importance in human conception: a systematic review. <i>Human Reproduction Update</i> , 2018 , 24, 15-34	15.8	78
228	Fast and sensitive isothermal DNA assay using microbead dielectrophoresis for detection of anti-microbial resistance genes. <i>Biosensors and Bioelectronics</i> , 2018 , 117, 583-589	11.8	13
227	A Novel Microfluidic Point-of-Care Biosensor System on Printed Circuit Board for Cytokine Detection. <i>Sensors</i> , 2018 , 18,	3.8	24
226	Cellular crosstalk between airway epithelial and endothelial cells regulates barrier functions during exposure to double-stranded RNA. <i>Immunity, Inflammation and Disease</i> , 2017 , 5, 45-56	2.4	23
225	Ultra-fast electronic detection of antimicrobial resistance genes using isothermal amplification and Thin Film Transistor sensors. <i>Biosensors and Bioelectronics</i> , 2017 , 96, 281-287	11.8	38
224	A highly specific Escherichia coli qPCR and its comparison with existing methods for environmental waters. <i>Water Research</i> , 2017 , 126, 101-110	12.5	42
223	Size and dielectric properties of skeletal stem cells change critically after enrichment and expansion from human bone marrow: consequences for microfluidic cell sorting. <i>Journal of the Royal Society Interface</i> , 2017 , 14,	4.1	20
222	An Assay System for Point-of-Care Diagnosis of Tuberculosis using Commercially Manufactured PCB Technology. <i>Scientific Reports</i> , 2017 , 7, 685	4.9	18
221	High-performance PCB-based capillary pumps for affordable point-of-care diagnostics. <i>Microfluidics and Nanofluidics</i> , 2017 , 21, 103	2.8	11
220	A Sub-30 mV Resolution Thin Film Transistor-Based Nanoribbon Biosensing Platform. <i>Sensors</i> , 2017 , 17,	3.8	1
219	A Programmable Digital Microfluidic Assay for the Simultaneous Detection of Multiple Anti-Microbial Resistance Genes. <i>Micromachines</i> , 2017 , 8, 111	3.3	23
218	AC electrokinetics of conducting microparticles: A review. <i>Current Opinion in Colloid and Interface Science</i> , 2016 , 24, 79-90	7.6	48
217	Effect of subthreshold slope on the sensitivity of nanoribbon sensors. <i>Nanotechnology</i> , 2016 , 27, 285501	3.4	13
216	The electrochemical 4-chlorophenol sensing properties of a plasma-treated multilayer graphene modified photolithography patterned platinum electrode. <i>RSC Advances</i> , 2016 , 6, 105920-105929	3.7	14
215	Electrochemical sensing of bisphenol using a multilayer graphene nanobelt modified photolithography patterned platinum electrode. <i>Nanotechnology</i> , 2016 , 27, 375504	3.4	13

214	High accuracy particle analysis using sheathless microfluidic impedance cytometry. <i>Lab on A Chip</i> , 2016 , 16, 2467-73	7.2	50
213	Low-cost top-down zinc oxide nanowire sensors through a highly transferable ion beam etching for healthcare applications. <i>Microelectronic Engineering</i> , 2016 , 153, 96-100	2.5	15
212	Simple and rapid sample preparation system for the molecular detection of antibiotic resistant pathogens in human urine. <i>Biomedical Microdevices</i> , 2016 , 18, 18	3.7	20
211	Long-lasting FR-4 surface hydrophilisation towards commercial PCB passive microfluidics. <i>Applied Surface Science</i> , 2016 , 368, 69-75	6.7	13
210	AC and Phase Sensing of Nanowires for Biosensing. <i>Biosensors</i> , 2016 , 6, 15	5.9	11
209	A Low-Noise Transimpedance Amplifier for BLM-Based Ion Channel Recording. <i>Sensors</i> , 2016 , 16,	3.8	2
208	Dual-gate polysilicon nanoribbon biosensors enable high sensitivity detection of proteins. <i>Nanotechnology</i> , 2016 , 27, 165502	3.4	9
207	One-Step Electrodeposition of NiCo ₂ S ₄ Nanosheets on Patterned Platinum Electrodes for Non-Enzymatic Glucose Sensing. <i>Chemistry - an Asian Journal</i> , 2016 , 11, 1837-41	4.5	36
206	A PCB-based electronic ELISA system for rapid, portable infectious disease diagnosis 2016 ,		4
205	Mechanical phenotyping of primary human skeletal stem cells in heterogeneous populations by real-time deformability cytometry. <i>Integrative Biology (United Kingdom)</i> , 2016 , 8, 616-23	3.7	33
204	Skeletal stem cell isolation: A review on the state-of-the-art microfluidic label-free sorting techniques. <i>Biotechnology Advances</i> , 2016 , 34, 908-923	17.8	16
203	Low-Cost Nanoribbon Sensors for Protein Analysis in Human Serum Using a Miniature Bead-Based Enzyme-Linked Immunosorbent Assay. <i>Analytical Chemistry</i> , 2016 , 88, 4872-8	7.8	24
202	Amperometric IFN- γ Immunosensors with commercially fabricated PCB sensing electrodes. <i>Biosensors and Bioelectronics</i> , 2016 , 86, 805-810	11.8	32
201	Rapid and sensitive detection of antibiotic resistance on a programmable digital microfluidic platform. <i>Lab on A Chip</i> , 2015 , 15, 3065-75	7.2	77
200	Recent developments in 2D layered inorganic nanomaterials for sensing. <i>Nanoscale</i> , 2015 , 7, 13293-312	7.7	305
199	Study of parasitic resistance effects in nanowire and nanoribbon biosensors. <i>Nanoscale Research Letters</i> , 2015 , 10, 79	5	8
198	Droplet interfaced parallel and quantitative microfluidic-based separations. <i>Analytical Chemistry</i> , 2015 , 87, 3895-901	7.8	13
197	On-chip cavity-enhanced absorption spectroscopy using a white light-emitting diode and polymer mirrors. <i>Lab on A Chip</i> , 2015 , 15, 711-7	7.2	21

196	Real-time microfluidic recombinase polymerase amplification for the toxin B gene of <i>Clostridium difficile</i> on a SlipChip platform. <i>Analyst, The</i> , 2015 , 140, 258-64	5	37
195	Surface and Electrical Characterization of Ag/AgCl Pseudo-Reference Electrodes Manufactured with Commercially Available PCB Technologies. <i>Sensors</i> , 2015 , 15, 18102-13	3.8	26
194	Temporal Monitoring of Differentiated Human Airway Epithelial Cells Using Microfluidics. <i>PLoS ONE</i> , 2015 , 10, e0139872	3.7	39
193	Screening ion-channel ligand interactions with passive pumping in a microfluidic bilayer lipid membrane chip. <i>Biomicrofluidics</i> , 2015 , 9, 014103	3.2	4
192	Self-assembly of metal nanowires induced by alternating current electric fields. <i>Applied Physics Letters</i> , 2015 , 106, 023110	3.4	19
191	A Distributed Amplifier System for Bilayer Lipid Membrane (BLM) Arrays With Noise and Individual Offset Cancellation. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2015 , 9, 334-44	5.1	21
190	Towards a high-precision, embedded system for versatile sensitive biosensing measurements 2015 ,		1
189	Autonomous droplet architectures. <i>Artificial Life</i> , 2015 , 21, 195-204	1.4	11
188	Characterization of the Prokaryotic Sodium Channel NavSp Pore with a Microfluidic Bilayer Platform. <i>PLoS ONE</i> , 2015 , 10, e0131286	3.7	6
187	Shaped apertures in photoresist films enhance the lifetime and mechanical stability of suspended lipid bilayers. <i>Biophysical Journal</i> , 2014 , 106, 1650-9	2.9	30
186	Three-Mask Polysilicon Thin-Film Transistor Biosensor. <i>IEEE Transactions on Electron Devices</i> , 2014 , 61, 2170-2176	2.9	16
185	StyiletChip: a microfluidic device for recording host invasion behaviour and feeding of plant parasitic nematodes. <i>Lab on A Chip</i> , 2014 , 14, 2447-55	7.2	12
184	Droplet-based in situ compartmentalization of chemically separated components after isoelectric focusing in a Slipchip. <i>Lab on A Chip</i> , 2014 , 14, 555-61	7.2	17
183	A fluorogenic heterogeneous immunoassay for cardiac muscle troponin cTnI on a digital microfluidic device. <i>Analytical and Bioanalytical Chemistry</i> , 2014 , 406, 5967-76	4.4	20
182	A sheath-less combined optical and impedance micro-cytometer. <i>Lab on A Chip</i> , 2014 , 14, 3064-73	7.2	41
181	Interdroplet bilayer arrays in millifluidic droplet traps from 3D-printed moulds. <i>Lab on A Chip</i> , 2014 , 14, 722-9	7.2	45
180	Scalable micro-cavity bilayer lipid membrane arrays for parallel ion channel recording. <i>Sensors and Actuators B: Chemical</i> , 2014 , 199, 76-82	8.5	13
179	Microfluidic impedance cytometry of tumour cells in blood. <i>Biomicrofluidics</i> , 2014 , 8, 064124	3.2	47

178	An AC and phase nanowire sensing for site-binding detection 2014 ,		3
177	Electro-orientation of a metal nanowire counterbalanced by thermal torques. <i>Physical Review E</i> , 2014 , 89, 062306	2.4	14
176	Single-channel electrophysiology of cell-free expressed ion channels by direct incorporation in lipid bilayers. <i>Analyt, The</i> , 2013 , 138, 7294-8	5	16
175	Electric-field-induced rotation of Brownian metal nanowires. <i>Physical Review E</i> , 2013 , 88, 033025	2.4	23
174	Real-time isothermal RNA amplification of toxic marine microalgae using preserved reagents on an integrated microfluidic platform. <i>Analyt, The</i> , 2013 , 138, 593-602	5	19
173	Sensitive analysis of trace water analytes using colourimetric cavity ringdown spectroscopy. <i>Analytical Methods</i> , 2013 , 5, 239-247	3.2	9
172	Cell-free protein expression systems in microdroplets: Stabilization of interdroplet bilayers. <i>Biomicrofluidics</i> , 2013 , 7, 14108	3.2	16
171	Electrorotation of titanium microspheres. <i>Electrophoresis</i> , 2013 , 34, 979-86	3.6	22
170	Electro-orientation and electrorotation of metal nanowires. <i>Physical Review E</i> , 2013 , 88, 063018	2.4	36
169	NeuroChip: a microfluidic electrophysiological device for genetic and chemical biology screening of <i>Caenorhabditis elegans</i> adult and larvae. <i>PLoS ONE</i> , 2013 , 8, e64297	3.7	26
168	Alternating current electrokinetic properties of gold-coated microspheres. <i>Langmuir</i> , 2012 , 28, 13861-70		72
167	Controlling the wettability of hierarchically structured thermoplastics. <i>Langmuir</i> , 2012 , 28, 896-904	4	34
166	Microfluidic lysis of human blood for leukocyte analysis using single cell impedance cytometry. <i>Analytical Chemistry</i> , 2012 , 84, 1070-5	7.8	56
165	Towards molecular computing: co-development of microfluidic devices and chemical reaction media. <i>BioSystems</i> , 2012 , 109, 18-23	1.9	17
164	Lab-on-chip measurement of nitrate and nitrite for in situ analysis of natural waters. <i>Environmental Science & Technology</i> , 2012 , 46, 9548-56	10.3	124
163	Programmable large area digital microfluidic array with integrated droplet sensing for bioassays. <i>Lab on A Chip</i> , 2012 , 12, 3305-13	7.2	126
162	Thin film polycrystalline silicon nanowire biosensors. <i>Nano Letters</i> , 2012 , 12, 1868-72	11.5	89
161	Simultaneous high speed optical and impedance analysis of single particles with a microfluidic cytometer. <i>Lab on A Chip</i> , 2012 , 12, 118-26	7.2	40

160	Comparison of venous and capillary differential leukocyte counts using a standard hematology analyzer and a novel microfluidic impedance cytometer. <i>PLoS ONE</i> , 2012 , 7, e43702	3.7	22
159	Multiplexed suspension array platform for high-throughput protein assays. <i>Biomedical Microdevices</i> , 2012 , 14, 651-7	3.7	6
158	Gold Nanoparticles-Coated SU-8 for Sensitive Fluorescence-Based Detections of DNA. <i>Diagnostics</i> , 2012 , 2, 72-82	3.8	6
157	The use of ultrasonic waves to minimise biofouling in oceanographic microsensors 2012 ,		2
156	AC Electrokinetic Micro- and Nano-particle Manipulation and Characterization 2011 , 1-28		3
155	On-chip real-time nucleic acid sequence-based amplification for RNA detection and amplification. <i>Analytical Methods</i> , 2011 , 3, 2127	3.2	16
154	Design and fabrication of an ac-electro-osmosis micropump with 3D high-aspect-ratio electrodes using only SU-8. <i>Journal of Micromechanics and Microengineering</i> , 2011 , 21, 035018	2	20
153	Kinetics and thermodynamics of biotinylated oligonucleotide probe binding to particle-immobilized avidin and implications for multiplexing applications. <i>Analytical Chemistry</i> , 2011 , 83, 2005-11	7.8	14
152	Micro-impedance cytometry for detection and analysis of micron-sized particles and bacteria. <i>Lab on A Chip</i> , 2011 , 11, 407-12	7.2	102
151	Positional dependence of particles in microfluidic impedance cytometry. <i>Lab on A Chip</i> , 2011 , 11, 1234-9	7.2	57
150	Integrated systems for rapid point of care (PoC) blood cell analysis. <i>Lab on A Chip</i> , 2011 , 11, 1249-55	7.2	76
149	Chemically resistant microfluidic valves from Viton [®] membranes bonded to COC and PMMA. <i>Lab on A Chip</i> , 2011 , 11, 2455-9	7.2	48
148	Nanomolar detection with high sensitivity microfluidic absorption cells manufactured in tinted PMMA for chemical analysis. <i>Talanta</i> , 2011 , 84, 235-9	6.2	46
147	Characterisation of an irreversible bonding process for COC ¹ /COC and COC ² /DMSO ¹ /COC sandwich structures and application to microvalves. <i>Sensors and Actuators B: Chemical</i> , 2011 , 160, 1473-1480	8.5	35
146	Electrorotation of metallic microspheres. <i>Langmuir</i> , 2011 , 27, 2128-31	4	51
145	Temporal optimization of microfluidic colorimetric sensors by use of multiplexed stop-flow architecture. <i>Analytical Chemistry</i> , 2011 , 83, 4814-21	7.8	21
144	Electrophysiological characterization of membrane disruption by nanoparticles. <i>ACS Nano</i> , 2011 , 5, 3599-1606	9.6	73
143	Characterization of non-spherical polymer particles by combined electrorotation and electroorientation. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2011 , 376, 67-71	5.1	14

142	An automated microfluidic colourimetric sensor applied in situ to determine nitrite concentration. <i>Sensors and Actuators B: Chemical</i> , 2011 , 156, 1009-1014	8.5	51
141	A Miniature, High Precision Conductivity and Temperature Sensor System for Ocean Monitoring. <i>IEEE Sensors Journal</i> , 2011 , 11, 3246-3252	4	39
140	Electroporation and lysis of marine microalga <i>Karenia brevis</i> for RNA extraction and amplification. <i>Journal of the Royal Society Interface</i> , 2011 , 8, 601-8	4.1	24
139	Organising Chemical Reaction Networks in Space and Time with Microfluidics. <i>International Journal of Nanotechnology and Molecular Computation</i> , 2011 , 3, 35-56		1
138	Parallel Recording of Single Ion Channels: A Heterogeneous System Approach. <i>IEEE Nanotechnology Magazine</i> , 2010 , 9, 295-302	2.6	20
137	Single cell impedance cytometry for identification and counting of CD4 T-cells in human blood using impedance labels. <i>Analytical Chemistry</i> , 2010 , 82, 1455-61	7.8	127
136	Single-colloidal particle impedance spectroscopy: complete equivalent circuit analysis of polyelectrolyte microcapsules. <i>Langmuir</i> , 2010 , 26, 3821-8	4	36
135	On-chip epithelial barrier function assays using electrical impedance spectroscopy. <i>Lab on A Chip</i> , 2010 , 10, 1611-7	7.2	43
134	Microfluidic colourimetric chemical analysis system: Application to nitrite detection. <i>Analytical Methods</i> , 2010 , 2, 484	3.2	81
133	Trapping single human osteoblast-like cells from a heterogeneous population using a dielectrophoretic microfluidic device. <i>Biomicrofluidics</i> , 2010 , 4,	3.2	37
132	Impedance spectroscopy and optical analysis of single biological cells and organisms in microsystems. <i>Methods in Molecular Biology</i> , 2010 , 583, 149-82	1.4	7
131	On-chip electrical impedance tomography for imaging biological cells. <i>Biosensors and Bioelectronics</i> , 2010 , 25, 1109-15	11.8	69
130	Continuous differential impedance spectroscopy of single cells. <i>Microfluidics and Nanofluidics</i> , 2010 , 9, 191-198	2.8	68
129	Single-cell microfluidic impedance cytometry: a review. <i>Microfluidics and Nanofluidics</i> , 2010 , 8, 423-443	2.8	374
128	Design, simulation and characterisation of integrated optics for a microfabricated flow cytometer. <i>Optics Communications</i> , 2010 , 283, 1987-1992	2	22
127	Microfluidic Impedance Cytometry: Measuring Single Cells at High Speed. <i>NATO Science for Peace and Security Series A: Chemistry and Biology</i> , 2010 , 507-527	0.1	
126	AC Electrokinetic Particle Manipulation in Microsystems. <i>NATO Science for Peace and Security Series A: Chemistry and Biology</i> , 2010 , 481-506	0.1	
125	Characterising Enzymes for Information Processing: Microfluidics for Autonomous Experimentation. <i>Lecture Notes in Computer Science</i> , 2010 , 191-191	0.9	1

124	Substrate arrays of iridium oxide microelectrodes for in vitro neuronal interfacing. <i>Frontiers in Neuroengineering</i> , 2009 , 2, 1		49
123	Holographically encoded microparticles for bead-based assays. <i>Journal Physics D: Applied Physics</i> , 2009 , 42, 055507	3	4
122	Digital signal processing methods for impedance microfluidic cytometry. <i>Microfluidics and Nanofluidics</i> , 2009 , 6, 179-187	2.8	34
121	Microfluidic array platform for simultaneous lipid bilayer membrane formation. <i>Biosensors and Bioelectronics</i> , 2009 , 24, 1235-40	11.8	57
120	Bilayer lipid membranes from falling droplets. <i>Analytical and Bioanalytical Chemistry</i> , 2009 , 393, 1601-5	4.4	23
119	Effect of deuterium-hydrogen exchange on the electrical conduction in lysozyme. <i>International Journal of Quantum Chemistry</i> , 2009 , 22, 367-374	2.1	3
118	Flow reversal in traveling-wave electrokinetics: an analysis of forces due to ionic concentration gradients. <i>Langmuir</i> , 2009 , 25, 4988-97	4	37
117	Leukocyte analysis and differentiation using high speed microfluidic single cell impedance cytometry. <i>Lab on A Chip</i> , 2009 , 9, 2881-9	7.2	306
116	Single cell imaging using electrical impedance tomography 2009 ,		5
115	Microparticle encoding technologies for high-throughput multiplexed suspension assays. <i>Integrative Biology (United Kingdom)</i> , 2009 , 1, 345-62	3.7	115
114	Negative DEP traps for single cell immobilisation. <i>Lab on A Chip</i> , 2009 , 9, 1534-40	7.2	137
113	A Simple, Low-Cost Double Beam Spectrophotometer for Colorimetric Detection of Nitrite in Seawater. <i>IEEE Sensors Journal</i> , 2009 , 9, 862-869	4	14
112	Binding of anionic lipids to at least three nonannular sites on the potassium channel KcsA is required for channel opening. <i>Biophysical Journal</i> , 2008 , 94, 1689-98	2.9	107
111	Analytical solutions of the dielectrophoretic and travelling wave forces generated by interdigitated electrode arrays. <i>Journal of Physics: Conference Series</i> , 2008 , 142, 012011	0.3	1
110	Formation of artificial lipid bilayers using droplet dielectrophoresis. <i>Lab on A Chip</i> , 2008 , 8, 1617-20	7.2	64
109	Oceanographic Sensor for in-situ temperature and conductivity monitoring 2008 ,		6
108	Diffractive micro bar codes for encoding of biomolecules in multiplexed assays. <i>Analytical Chemistry</i> , 2008 , 80, 1902-9	7.8	31
107	Electric field analysis using Schwarz-Christoffel mapping. <i>Journal of Physics: Conference Series</i> , 2008 , 142, 012029	0.3	6

106	ANALYTICAL AND NUMERICAL MODELING METHODS FOR IMPEDANCE ANALYSIS OF SINGLE CELLS ON-CHIP. <i>Nano</i> , 2008 , 03, 55-63	1.1	51
105	Traveling-wave electrokinetic micropumps: velocity, electrical current, and impedance measurements. <i>Langmuir</i> , 2008 , 24, 9361-9	4	37
104	Analytical solutions for the electric field and dielectrophoretic force in a dielectrophoretic focusing electrode structure. <i>Applied Physics Letters</i> , 2008 , 92, 173901	3.4	6
103	Droplet mixer based on electrowetting. <i>Journal of Physics: Conference Series</i> , 2008 , 142, 012071	0.3	2
102	Superimposed nanostructured diffraction gratings as high capacity barcodes for biological and chemical applications. <i>Optics Communications</i> , 2008 , 281, 1789-1795	2	9
101	Bead-based immunoassays using a micro-chip flow cytometer. <i>Lab on A Chip</i> , 2007 , 7, 1048-56	7.2	83
100	High speed multi-frequency impedance analysis of single particles in a microfluidic cytometer using maximum length sequences. <i>Lab on A Chip</i> , 2007 , 7, 1034-40	7.2	88
99	Analytical solutions of ac electrokinetics in interdigitated electrode arrays: electric field, dielectrophoretic and traveling-wave dielectrophoretic forces. <i>Physical Review E</i> , 2007 , 76, 046610	2.4	48
98	Multistep synthesis on SU-8: combining microfabrication and solid-phase chemistry on a single material. <i>ACS Combinatorial Science</i> , 2007 , 9, 462-72		25
97	Air-exposure technique for the formation of artificial lipid bilayers in microsystems. <i>Langmuir</i> , 2007 , 23, 8277-84	4	45
96	High density patterns fabricated in SU-8 by UV curing nanoimprint. <i>Microelectronic Engineering</i> , 2007 , 84, 872-876	2.5	36
95	Label-Free Differential Leukocyte Counts Using a Microfabricated, Single-Cell Impedance Spectrometer 2007 ,		7
94	Micromachined glass apertures for artificial lipid bilayer formation in a microfluidic system. <i>Journal of Micromechanics and Microengineering</i> , 2007 , 17, S189-S196	2	26
93	Dielectric spectroscopy of single cells: time domain analysis using Maxwell's mixture equation. <i>Journal Physics D: Applied Physics</i> , 2007 , 40, 1-8	3	87
92	Controlled delivery of proteins into bilayer lipid membranes on chip. <i>Lab on A Chip</i> , 2007 , 7, 1176-83	7.2	58
91	Single cell dielectric spectroscopy. <i>Journal Physics D: Applied Physics</i> , 2007 , 40, 61-70	3	281
90	Broadband single cell impedance spectroscopy using maximum length sequences: theoretical analysis and practical considerations. <i>Measurement Science and Technology</i> , 2007 , 18, 2859-2868	2	66
89	Fabrication of diffraction-encoded micro-particles using nano-imprint lithography. <i>Journal of Micromechanics and Microengineering</i> , 2007 , 17, S116-S121	2	16

88	Impedance spectroscopy using maximum length sequences: application to single cell analysis. <i>Review of Scientific Instruments</i> , 2007 , 78, 054301	1.7	40
87	Control of two-phase flow in a microfluidic system using ac electric fields. <i>Applied Physics Letters</i> , 2007 , 91, 254107	3.4	19
86	Dielectrophoretic investigation of plant virus particles: Cow Pea Mosaic Virus and Tobacco Mosaic Virus. <i>Electrophoresis</i> , 2006 , 27, 3939-48	3.6	55
85	Nano metamaterials and photonic gratings by nanoimprint and hot embossing 2006 ,		1
84	2006 ,		1
83	Solid state AC electroosmosis micro pump on a Chip 2006 ,		2
82	Experiments on AC electrokinetic pumping of liquids using arrays of microelectrodes. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2006 , 13, 670-677	2.3	55
81	Electrothermal flows generated by alternating and rotating electric fields in microsystems. <i>Journal of Fluid Mechanics</i> , 2006 , 564, 415	3.7	127
80	Air-trapping on biocompatible nanopatterns. <i>Langmuir</i> , 2006 , 22, 11230-3	4	26
79	High capacity tagging using nanostructured diffraction barcodes. <i>Optics Express</i> , 2006 , 14, 1382-7	3.3	13
78	High throughput particle analysis: combining dielectrophoretic particle focussing with confocal optical detection. <i>Biosensors and Bioelectronics</i> , 2006 , 21, 1621-30	11.8	131
77	High speed simultaneous single particle impedance and fluorescence analysis on a chip. <i>Current Applied Physics</i> , 2006 , 6, 367-370	2.6	60
76	Impedance based flow sensor 2005 ,		2
75	Artificial bilayer lipid membranes (BLMs) on-chip for single molecule sensing 2005 ,		3
74	AC electrokinetic pumping of liquids using arrays of microelectrodes 2005 ,		4
73	The electrokinetic properties of latex particles: comparison of electrophoresis and dielectrophoresis. <i>Journal of Colloid and Interface Science</i> , 2005 , 285, 419-28	9.3	189
72	Superhydrophobicity and superhydrophilicity of regular nanopatterns. <i>Nano Letters</i> , 2005 , 5, 2097-103	11.5	433
71	Rapid fabrication of polymer microfluidic systems for the production of artificial lipid bilayers. <i>Journal of Micromechanics and Microengineering</i> , 2005 , 15, S139-S144	2	33

70	Rapid rotation of micron and submicron dielectric particles measured using optical tweezers. <i>Journal of Modern Optics</i> , 2003 , 50, 1539-1554	1.1	32
69	Microdevices for dielectrophoretic flow-through cell separation. <i>IEEE Engineering in Medicine and Biology Magazine</i> , 2003 , 22, 85-90		65
68	Electrohydrodynamics and dielectrophoresis in microsystems: scaling laws. <i>Journal Physics D: Applied Physics</i> , 2003 , 36, 2584-2597	3	493
67	Numerical solution of the dielectrophoretic and travelling wave forces for interdigitated electrode arrays using the finite element method. <i>Journal of Electrostatics</i> , 2002 , 56, 235-254	1.7	122
66	Interconnected reversible lab-on-a-chip technology. <i>Lab on A Chip</i> , 2002 , 2, 65-9	7.2	21
65	Manipulation of Bio-Particles in Microelectrode Structures by Means of Non-Uniform AC Electric Fields 2002 , 165		1
64	Measuring the dielectric properties of herpes simplex virus type 1 virions with dielectrophoresis. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2002 , 1571, 1-8	4	78
63	Dielectrophoretic Chromatography of Cells 2002 , 829-831		2
62	Dielectrophoretic manipulation and characterization of herpes simplex virus-1 capsids. <i>European Biophysics Journal</i> , 2001 , 30, 268-72	1.9	55
61	Electrothermally induced fluid flow on microelectrodes. <i>Journal of Electrostatics</i> , 2001 , 53, 71-87	1.7	218
60	Comment on "Theoretical Model of Electrode Polarization and AC Electroosmotic Fluid Flow in Planar Electrode Arrays" <i>Journal of Colloid and Interface Science</i> , 2001 , 243, 265-266	9.3	4
59	The dielectrophoretic levitation and separation of latex beads in microchips. <i>Electrophoresis</i> , 2001 , 22, 3893-901	3.6	96
58	Measuring the frequency dependent polarizability of colloidal particles from dielectrophoretic collection data. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2001 , 8, 566-571	2.3	17
57	The dielectrophoretic and travelling wave forces generated by interdigitated electrode arrays: analytical solution using Fourier series. <i>Journal Physics D: Applied Physics</i> , 2001 , 34, 1553-1561	3	159
56	Particle Focusing and Separation Using Dielectrophoresis in a Microfluidic Device 2001 , 111-112		2
55	The dielectrophoretic and travelling wave forces generated by interdigitated electrode arrays: analytical solution using Fourier series. <i>Journal Physics D: Applied Physics</i> , 2001 , 34, 2708-2708	3	8
54	The dielectrophoretic levitation and separation of latex beads in microchips 2001 , 22, 3893		1
53	Ac electrokinetics: a survey of sub-micrometre particle dynamics. <i>Journal Physics D: Applied Physics</i> , 2000 , 33, 632-641	3	172

52	Design and fabrication of travelling wave dielectrophoresis structures. <i>Journal of Micromechanics and Microengineering</i> , 2000 , 10, 72-79	2	69
51	Electric field induced fluid flow on microelectrodes: the effect of illumination. <i>Journal Physics D: Applied Physics</i> , 2000 , 33, L13-L17	3	89
50	Digital Holographic Microscopy. <i>Microscopy and Microanalysis</i> , 1999 , 5, 362-363	0.5	
49	Mapping the electrorotational torque in planar microelectrodes. <i>Journal Physics D: Applied Physics</i> , 1999 , 32, 1548-1552	3	12
48	The role of electrohydrodynamic forces in the dielectrophoretic manipulation and separation of particles. <i>Journal of Electrostatics</i> , 1999 , 47, 71-81	1.7	51
47	Fabrication of micro-electrode arrays for biotechnological applications. <i>Microelectronic Engineering</i> , 1999 , 46, 397-400	2.5	3
46	Measurement of bacterial flagellar thrust by negative dielectrophoresis. <i>Biotechnology Progress</i> , 1999 , 15, 245-9	2.8	36
45	AC Electric-Field-Induced Fluid Flow in Microelectrodes. <i>Journal of Colloid and Interface Science</i> , 1999 , 217, 420-422	9.3	374
44	The Dielectrophoretic Behavior of Submicron Latex Spheres: Influence of Surface Conductance. <i>Journal of Colloid and Interface Science</i> , 1999 , 220, 454-457	9.3	81
43	An evanescent-field technique for dielectrophoresis studies of colloidal particles. <i>Measurement Science and Technology</i> , 1999 , 10, 759-762	2	6
42	Separation of submicron bioparticles by dielectrophoresis. <i>Biophysical Journal</i> , 1999 , 77, 516-25	2.9	419
41	Electrorotation studies of baby hamster kidney fibroblasts infected with herpes simplex virus type 1. <i>Biophysical Journal</i> , 1999 , 76, 2833-42	2.9	35
40	Dielectrophoresis of Submicrometer Latex Spheres. 1. Experimental Results. <i>Journal of Physical Chemistry B</i> , 1999 , 103, 41-50	3.4	197
39	Dielectrophoretic Characterization and Separation of Antibody-Coated Submicrometer Latex Spheres. <i>Analytical Chemistry</i> , 1999 , 71, 3441-3445	7.8	68
38	Cell reactions to dielectrophoretic manipulation. <i>Biochemical and Biophysical Research Communications</i> , 1999 , 257, 687-98	3.4	73
37	Manipulation of herpes simplex virus type 1 by dielectrophoresis. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 1998 , 1425, 119-26	4	118
36	Ac electrokinetics: a review of forces in microelectrode structures. <i>Journal Physics D: Applied Physics</i> , 1998 , 31, 2338-2353	3	903
35	Separation of submicrometre particles using a combination of dielectrophoretic and electrohydrodynamic forces. <i>Journal Physics D: Applied Physics</i> , 1998 , 31, L25-L30	3	105

34	Dielectrophoretic trapping of single sub-micrometre scale bioparticles. <i>Journal Physics D: Applied Physics</i> , 1998 , 31, 2205-2210	3	89
33	Dielectrophoretic separation of nano-particles. <i>Journal Physics D: Applied Physics</i> , 1997 , 30, L41-L44	3	128
32	Large-area travelling-wave dielectrophoresis particle separator. <i>Journal of Micromechanics and Microengineering</i> , 1997 , 7, 65-70	2	94
31	Dielectrophoretic investigations of sub-micrometre latex spheres. <i>Journal Physics D: Applied Physics</i> , 1997 , 30, 2626-2633	3	90
30	Manipulation and trapping of sub-micron bioparticles using dielectrophoresis. <i>Journal of Proteomics</i> , 1997 , 35, 89-102		137
29	Dielectrophoretic manipulation of rod-shaped viral particles. <i>Journal of Electrostatics</i> , 1997 , 42, 279-293	1.7	184
28	Synergistic and hierarchical adhesive and topographic guidance of BHK cells. <i>Experimental Cell Research</i> , 1996 , 228, 313-25	4.2	147
27	The specific adsorption of streptavidin to a tetrabiotinylated porphyrin monolayer at the air-water interface. <i>Thin Solid Films</i> , 1995 , 266, 289-291	2.2	12
26	Synthesis and monolayer behavior of a tetrabiotinylated porphyrin ligand. <i>Langmuir</i> , 1995 , 11, 3523-3528		11
25	Patterning and regeneration of surfaces with antibodies. <i>Analytical Chemistry</i> , 1995 , 67, 3605-7	7.8	56
24	Molecular-scale neural nets: an approach to the self-assembly of molecular networks. <i>Supramolecular Science</i> , 1995 , 2, 75-87		7
23	Immobilisierung von Biomolekülen in zweidimensionalen Mustern im Mikrometermaßstab. <i>Angewandte Chemie</i> , 1995 , 107, 84-86	3.6	6
22	Micron-Scale Patterning of Biological Molecules. <i>Angewandte Chemie International Edition in English</i> , 1995 , 34, 91-93		102
21	Simultaneous determination of follicle stimulating hormone and luteinising hormone using a multianalyte immunosensor. <i>Analytica Chimica Acta</i> , 1995 , 310, 251-256	6.6	48
20	Photo-patterning of sensor surfaces with biomolecular structures: characterisation using AFM and fluorescence microscopy. <i>Biosensors and Bioelectronics</i> , 1995 , 10, 841-6	11.8	38
19	Surface plasmon resonance microscopy: Reconstructing a three-dimensional image. <i>Applied Physics Letters</i> , 1994 , 64, 1330-1331	3.4	15
18	Self-assembly of avidin and streptavidin with multifunctional biotin molecules. <i>Thin Solid Films</i> , 1994 , 244, 789-793	2.2	5
17	Polymerization of avidin and streptavidin with aromatic bisbiotin ligands. <i>Journal of Polymer Science Part A</i> , 1994 , 32, 1331-1340	2.5	4

16	Surface plasmon resonance studies of chemisorbed biotin-streptavidin multilayers. <i>Thin Solid Films</i> , 1992 , 209, 122-126	2.2	49
15	A surface plasmon resonance immunosensor based on the streptavidin-biotin complex. <i>Biosensors and Bioelectronics</i> , 1992 , 7, 405-10	11.8	70
14	Assembling networks for molecular electronics. <i>Makromolekulare Chemie Macromolecular Symposia</i> , 1991 , 46, 1-8		6
13	Behavior of avidin and avidin/bisbiotin polymers at the air-water interface. <i>Journal of Colloid and Interface Science</i> , 1991 , 144, 53-62	9.3	9
12	Characterization of chemisorbed monolayers by surface potential measurements. <i>Journal Physics D: Applied Physics</i> , 1991 , 24, 1443-1450	3	24
11	Proton transport at the monolayer-water interface. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1991 , 1062, 149-56	3.8	62
10	Models for interpreting surface potential measurements and their application to phospholipid monolayers. <i>Journal of Colloid and Interface Science</i> , 1990 , 139, 508-518	9.3	112
9	Polarity-dependent voltage-gated porin channels from Escherichia coli in lipid bilayer membranes. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1990 , 1021, 175-81	3.8	25
8	The surface potential of monolayers formed on weak acidic electrolytes: Implications for lateral conduction. <i>Chemical Physics Letters</i> , 1989 , 161, 147-150	2.5	38
7	The effect of water quality on the electrical characteristics of Langmuir monolayers. <i>Thin Solid Films</i> , 1989 , 173, L141-L147	2.2	30
6	Lateral conduction at a monolayer-water interface. <i>Thin Solid Films</i> , 1989 , 178, 73-79	2.2	23
5	Two-dimensional proton conduction at a membrane surface: Influence of molecular packing and hydrogen bonding. <i>Chemical Physics Letters</i> , 1988 , 150, 311-314	2.5	37
4	A proton-injecting technique for the measurement of hydration-dependent protonic conductivity. <i>Journal of Physics E: Scientific Instruments</i> , 1986 , 19, 80-82		30
3	Protonic and ionic conduction in lysozyme. Hydration and field-dependent effects. <i>Journal of the Chemical Society Faraday Transactions I</i> , 1986 , 82, 143		28
2	Experimental studies of proton transport in hydrated lysozyme and β -cyclodextrin. <i>International Journal of Quantum Chemistry</i> , 1984 , 26, 209-216	2.1	10
1	Rapid rotation of micron and submicron dielectric particles measured using optical tweezers		4