

# Jerome P Ferrance

## List of Publications by Citations

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72  
papers

3,474  
citations

28  
h-index

58  
g-index

83  
ext. papers

3,713  
ext. citations

4.9  
avg, IF

4.68  
L-index

#	Paper	IF	Citations
72	A fully integrated microfluidic genetic analysis system with sample-in-answer-out capability. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2006</b> , 103, 19272-7	11.5	471
71	Microchip-based purification of DNA from biological samples. <i>Analytical Chemistry</i> , <b>2003</b> , 75, 1880-6	7.8	297
70	Polymerase chain reaction in polymeric microchips: DNA amplification in less than 240 seconds. <i>Analytical Biochemistry</i> , <b>2001</b> , 291, 124-32	3.1	239
69	Toward a microchip-based solid-phase extraction method for isolation of nucleic acids. <i>Electrophoresis</i> , <b>2002</b> , 23, 727-33	3.6	209
68	Quenching of the electrochemiluminescence of tris(2,2'-bipyridine)ruthenium(II) by ferrocene and its potential application to quantitative DNA detection. <i>Journal of the American Chemical Society</i> , <b>2006</b> , 128, 7572-8	16.4	187
67	A simple, valveless microfluidic sample preparation device for extraction and amplification of DNA from nanoliter-volume samples. <i>Analytical Chemistry</i> , <b>2006</b> , 78, 1444-51	7.8	144
66	A microchip-based proteolytic digestion system driven by electroosmotic pumping. <i>Lab on A Chip</i> , <b>2003</b> , 3, 11-8	7.2	136
65	Chitosan as a polymer for pH-induced DNA capture in a totally aqueous system. <i>Analytical Chemistry</i> , <b>2006</b> , 78, 7222-8	7.8	125
64	Microchip-based macroporous silica sol-gel monolith for efficient isolation of DNA from clinical samples. <i>Analytical Chemistry</i> , <b>2006</b> , 78, 5704-10	7.8	94
63	Microchip-based cell lysis and DNA extraction from sperm cells for application to forensic analysis. <i>Journal of Forensic Sciences</i> , <b>2006</b> , 51, 266-73	1.8	86
62	Separation of sperm and epithelial cells in a microfabricated device: potential application to forensic analysis of sexual assault evidence. <i>Analytical Chemistry</i> , <b>2005</b> , 77, 742-9	7.8	77
61	Utilization of glucose and amino acids in insect cell cultures: Quantifying the metabolic flows within the primary pathways and medium development. <i>Biotechnology and Bioengineering</i> , <b>1993</b> , 42, 697-707	4.9	74
60	Microfluidic-based DNA purification in a two-stage, dual-phase microchip containing a reversed-phase and a photopolymerized monolith. <i>Analytical Chemistry</i> , <b>2007</b> , 79, 6135-42	7.8	71
59	Developments toward a complete micro-total analysis system for Duchenne muscular dystrophy diagnosis. <i>Analytica Chimica Acta</i> , <b>2003</b> , 500, 223-236	6.6	71
58	An integrated microfluidic device for DNA purification and PCR amplification of STR fragments. <i>Forensic Science International: Genetics</i> , <b>2010</b> , 4, 178-86	4.3	70
57	Chitosan-coated silica as a solid phase for RNA purification in a microfluidic device. <i>Analytical Chemistry</i> , <b>2009</b> , 81, 5249-56	7.8	66
56	Analysis of metabolic fluxes in batch and continuous cultures of <i>Bacillus subtilis</i> . <i>Biotechnology and Bioengineering</i> , <b>1993</b> , 42, 686-96	4.9	65

55	DNA extraction using a tetramethyl orthosilicate-grafted photopolymerized monolithic solid phase. <i>Analytical Chemistry</i> , <b>2006</b> , 78, 1673-81	7.8	62
54	Solid phase extraction of DNA from biological samples in a post-based, high surface area poly(methyl methacrylate) (PMMA) microdevice. <i>Lab on A Chip</i> , <b>2011</b> , 11, 1603-11	7.2	59
53	Pressure injection on a valved microdevice for electrophoretic analysis of submicroliter samples. <i>Analytical Chemistry</i> , <b>2005</b> , 77, 3637-43	7.8	50
52	Microchip extraction of catecholamines using a boronic acid functional affinity monolith. <i>Analytica Chimica Acta</i> , <b>2011</b> , 690, 94-100	6.6	43
51	Characterization of dynamic solid phase DNA extraction from blood with magnetically controlled silica beads. <i>Analyst, The</i> , <b>2010</b> , 135, 531-7	5	37
50	Glass microfluidic devices with thin membrane voltage junctions for electrospray mass spectrometry. <i>Lab on A Chip</i> , <b>2005</b> , 5, 619-27	7.2	35
49	Miniaturized electrophoresis: an evolving role in laboratory medicine. <i>BioTechniques</i> , <b>2001</b> , 31, 1332-5, 1338-1340, 1342, passim	2.5	35
48	Microchip laser-induced fluorescence detection of proteins at submicrogram per milliliter levels mediated by dynamic labeling under pseudonative conditions. <i>Analytical Chemistry</i> , <b>2004</b> , 76, 4705-14	7.8	32
47	Dual-domain microchip-based process for volume reduction solid phase extraction of nucleic acids from dilute, large volume biological samples. <i>Analytical Chemistry</i> , <b>2010</b> , 82, 5669-78	7.8	31
46	Protein digestion and phosphopeptide enrichment on a glass microchip. <i>Analytica Chimica Acta</i> , <b>2006</b> , 564, 116-22	6.6	31
45	Expedited, chemically enhanced sperm cell recovery from cotton swabs for rape kit analysis. <i>Journal of Forensic Sciences</i> , <b>2007</b> , 52, 800-5	1.8	30
44	Extrinsic Fabry-Perot interferometry for noncontact temperature control of nanoliter-volume enzymatic reactions in glass microchips. <i>Analytical Chemistry</i> , <b>2005</b> , 77, 1038-45	7.8	28
43	The performance of a microchip-based fiber optic detection technique for the determination of Ca <sup>2+</sup> ions in urine. <i>Sensors and Actuators B: Chemical</i> , <b>2005</b> , 107, 24-31	8.5	28
42	Microfluidic chip-based protein capture from human whole blood using octadecyl (C18) silica beads for nucleic acid analysis from large volume samples. <i>Journal of Chromatography A</i> , <b>2007</b> , 1171, 29-36	4.5	26
41	A microchip sensor for calcium determination. <i>Analytical and Bioanalytical Chemistry</i> , <b>2006</b> , 386, 1303-124.4		26
40	Quantification of SMN1 and SMN2 genes by capillary electrophoresis for diagnosis of spinal muscular atrophy. <i>Electrophoresis</i> , <b>2008</b> , 29, 2904-11	3.6	23
39	Enhanced elution of sperm from cotton swabs via enzymatic digestion for rape kit analysis. <i>Journal of Forensic Sciences</i> , <b>2006</b> , 51, 574-9	1.8	22
38	Towards a microchip-based chromatographic platform. Part 2: sol-gel phases modified with polyelectrolyte multilayers for capillary electrochromatography. <i>Electrophoresis</i> , <b>2003</b> , 24, 1261-70	3.6	22

37	Development of a micro-total analysis system (µTAS) for the determination of catecholamines. <i>Analytical and Bioanalytical Chemistry</i> , <b>2010</b> , 398, 1909-17	4.4	21
36	On-line sample stacking and short-end injection CE for the determination of fluoxetine and norfluoxetine in plasma: Method development and validation using experimental designs. <i>Electrophoresis</i> , <b>2007</b> , 28, 3290-5	3.6	21
35	Integration of a precolumn fluorogenic reaction, separation, and detection of reduced glutathione. <i>Analytical Chemistry</i> , <b>2010</b> , 82, 7267-73	7.8	20
34	Genotyping of alpha-thalassemia deletions using multiplex polymerase chain reactions and gold nanoparticle-filled capillary electrophoresis. <i>Journal of Chromatography A</i> , <b>2009</b> , 1216, 1206-12	4.5	20
33	An active microfluidic system packaging technology. <i>Sensors and Actuators B: Chemical</i> , <b>2007</b> , 122, 337-386	3.6	20
32	Capillary electrophoresis with laser-induced fluorescence detection for laboratory diagnosis of galactosemia. <i>Journal of Chromatography A</i> , <b>2003</b> , 1004, 29-37	4.5	20
31	Highly Resolved Sub-Terahertz Vibrational Spectroscopy of Biological Macromolecules and Cells. <i>IEEE Sensors Journal</i> , <b>2013</b> , 13, 72-79	4	18
30	An automated micro-solid phase extraction device involving integrated high-pressure microvalves for genetic sample preparation. <i>Biomedical Microdevices</i> , <b>2009</b> , 11, 935-42	3.7	18
29	Protein determination by microchip capillary electrophoresis using an asymmetric squarylium dye: noncovalent labeling and nonequilibrium measurement of association constants. <i>Electrophoresis</i> , <b>2008</b> , 29, 3446-55	3.6	18
28	Gellan beads as a transparent media for protein immobilization and affinity capture. <i>Journal of Chromatography A</i> , <b>2007</b> , 1165, 86-92	4.5	17
27	Exploiting sensitive laser-induced fluorescence detection on electrophoretic microchips for executing rapid clinical diagnostics. <i>Luminescence</i> , <b>2001</b> , 16, 79-88	2.5	17
26	Evaluation of Microchip Electrophoresis as a Molecular Diagnostic Method for Duchenne Muscular Dystrophy. <i>Clinical Chemistry</i> , <b>2002</b> , 48, 380-383	5.5	16
25	Enhanced recovery of spermatozoa and comprehensive lysis of epithelial cells from sexual assault samples having a low cell counts or aged up to one year. <i>Forensic Science International: Genetics</i> , <b>2014</b> , 8, 84-9	4.3	14
24	A low-cost, low-power consumption, miniature laser-induced fluorescence system for DNA detection on a microfluidic device. <i>Clinics in Laboratory Medicine</i> , <b>2007</b> , 27, 173-81	2.1	14
23	Towards an integrated microfluidic device for spaceflight clinical diagnostics Microchip-based solid-phase extraction of hydroxyl radical markers. <i>Journal of Chromatography A</i> , <b>2008</b> , 1200, 198-203	4.5	14
22	Extraction of C-reactive protein from serum on a microfluidic chip. <i>Analytica Chimica Acta</i> , <b>2006</b> , 569, 195-202	6.6	13
21	Use of a capillary electrophoresis instrument with laser-induced fluorescence detection for DNA quantitation. Comparison of YO-PRO-1 and PicoGreen assays. <i>Journal of Chromatography A</i> , <b>2006</b> , 1113, 239-43	4.5	11
20	Insect cell physiology. <i>Cytotechnology</i> , <b>1997</b> , 24, 1-9	2.2	9

19	A simple method for the evaluation of microfluidic architecture using flow quantitation via a multiplexed fluidic resistance measurement. <i>Lab on A Chip</i> , <b>2010</b> , 10, 1960-6	7.2	7
18	The design and testing of a silica sol-gel-based hybridization array. <i>Journal of Non-Crystalline Solids</i> , <b>2004</b> , 350, 39-45	3.9	7
17	Single nucleotide polymorphism detection in the hMSH2 gene using conformation-sensitive CE. <i>Electrophoresis</i> , <b>2008</b> , 29, 634-40	3.6	6
16	Method for determining intracapillary solution temperatures: application to sample zone heating for enhanced fluorescent labeling of proteins. <i>Electrophoresis</i> , <b>2006</b> , 27, 1355-62	3.6	6
15	A Low-Cost, Low-Power, Consumption Miniature Laser-Induced Fluorescence System for DNA Detection on a Microfluidic Device. <i>Journal of the Association for Laboratory Automation</i> , <b>2006</b> , 11, 254-259		6
14	Solvent effects on the electrical and optical properties of composite carbon nanotube/MEH-PPV films. <i>Journal of Nanoparticle Research</i> , <b>2010</b> , 12, 405-415	2.3	5
13	Insect cell physiology. <i>Cytotechnology</i> , <b>1996</b> , 20, 33-41	2.2	5
12	Sub-terahertz vibrational spectroscopy for microRNA based diagnostic of ovarian cancer. <i>Convergent Science Physical Oncology</i> , <b>2016</b> , 2, 045001		5
11	Organics Analyzer for Sampling Icy Surfaces: A liquid chromatograph-mass spectrometer for future in situ small body missions <b>2013</b> ,		4
10	Single-walled Carbon Nanotube Strings for Biosensor Development. <i>Electroanalysis</i> , <b>2011</b> , 23, 2906-2914	1.5	4
9	Photo-Induced Current Changes in Carbon Nanotube Films Incorporating CdSe Nanocrystals. <i>Journal of Nanoelectronics and Optoelectronics</i> , <b>2011</b> , 6, 102-110	1.3	3
8	Evaluation of Sieving Polymers for Fast, Reproducible Electrophoretic Analysis of Short Tandem Repeats (STR) in Capillaries. <i>Journal of Forensic Sciences</i> , <b>2005</b> , 50, 1-7	1.8	3
7	Liquid chromatography-mass spectrometry interface for detection of extraterrestrial organics <b>2014</b> ,		2
6	Sub-terahertz resonance spectroscopy of biological macromolecules and cells <b>2013</b> ,		2
5	Rapid DNA amplification in glass microdevices. <i>Methods in Molecular Biology</i> , <b>2006</b> , 339, 217-32	1.4	2
4	Evaluation of microchip electrophoresis as a molecular diagnostic method for Duchenne muscular dystrophy. <i>Clinical Chemistry</i> , <b>2002</b> , 48, 380-3	5.5	2
3	Toward effective PCR-based amplification of DNA on microfabricated chips. <i>Methods in Molecular Biology</i> , <b>2001</b> , 163, 191-204	1.4	1
2	An Innovative Separation Platform: Electrophoretic Microchip Technology. <i>Separation Science and Technology</i> , <b>2001</b> , 3, 529-554	1.7	

1 Insect cell physiology. *Current Applications of Cell Culture Engineering*, **1996**, 33-41