Jerome P Ferrance

List of Publications by Year
in descending order

80	3,913	159358	118652
papers	citations	30 h-index	62 g-index

83	83	83	3069
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A fully integrated microfluidic genetic analysis system with sample-in-answer-out capability. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 19272-19277.	3.3	517
2	Microchip-Based Purification of DNA from Biological Samples. Analytical Chemistry, 2003, 75, 1880-1886.	3.2	331
3	Polymerase Chain Reaction in Polymeric Microchips: DNA Amplification in Less Than 240 Seconds. Analytical Biochemistry, 2001, 291, 124-132.	1.1	257
4	Toward a microchip-based solid-phase extraction method for isolation of nucleic acids. Electrophoresis, 2002, 23, 727-733.	1.3	233
5	Quenching of the Electrochemiluminescence of Tris(2,2â€˜-bipyridine)ruthenium(II) by Ferrocene and Its Potential Application to Quantitative DNA Detection. Journal of the American Chemical Society, 2006, 128, 7572-7578.	6.6	209
6	A Simple, Valveless Microfluidic Sample Preparation Device for Extraction and Amplification of DNA from Nanoliter-Volume Samples. Analytical Chemistry, 2006, 78, 1444-1451.	3.2	158
7	A microchip-based proteolytic digestion system driven by electroosmotic pumping. Lab on A Chip, 2003, 3, 11.	3.1	152
8	Chitosan as a Polymer for pH-Induced DNA Capture in a Totally Aqueous System. Analytical Chemistry, 2006, 78, 7222-7228.	3.2	147
9	Microchip-Based Macroporous Silica Solâ€˜Gel Monolith for Efficient Isolation of DNA from Clinical Samples. Analytical Chemistry, 2006, 78, 5704-5710.	3.2	101
10	Separation of Sperm and Epithelial Cells in a Microfabricated Device:Â Potential Application to Forensic Analysis of Sexual Assault Evidence. Analytical Chemistry, 2005, 77, 742-749.	3.2	96
11	Microchip-Based Cell Lysis and DNA Extraction from Sperm Cells for Application to Forensic Analysis. Journal of Forensic Sciences, 2006, 51, 266-273.	0.9	95
12	Utilization of glucose and amino acids in insect cell cultures: Quantifying the metabolic flows within the primary pathways and medium development. Biotechnology and Bioengineering, 1993, 42, 697-707.	1.7	81
13	Microfluidic-Based DNA Purification in a Two-Stage, Dual-Phase Microchip Containing a Reversed-Phase and a Photopolymerized Monolith. Analytical Chemistry, 2007, 79, 6135-6142.	3.2	79
14	Chitosan-Coated Silica as a Solid Phase for RNA Purification in a Microfluidic Device. Analytical Chemistry, 2009, 81, 5249-5256.	3.2	78
15	An integrated microfluidic device for DNA purification and PCR amplification of STR fragments. Forensic Science International: Genetics, 2010, 4, 178-186.	1.6	77
16	Developments toward a complete micro-total analysis system for Duchenne muscular dystrophy diagnosis. Analytica Chimica Acta, 2003, 500, 223-236.	2.6	75
17	DNA Extraction Using a Tetramethyl Orthosilicate-Grafted Photopolymerized Monolithic Solid Phase. Analytical Chemistry, 2006, 78, 1673-1681.	3.2	71
18	Analysis of metabolic fluxes in batch and continuous cultures ofBacillus subtilis. Biotechnology and Bioengineering, 1993, 42, 686-696.	1.7	69

#	Article	IF	Citations
19	Solid phase extraction of DNA from biological samples in a post-based, high surface area poly(methyl) Tj ETQq1 1 0.784314 rgBT /Ove	3.1	64
20	Pressure Injection on a Valved Microdevice for Electrophoretic Analysis of Submicroliter Samples. Analytical Chemistry, 2005, 77, 3637-3643.	3.2	54
21	Microchip extraction of catecholamines using a boronic acid functional affinity monolith. Analytica Chimica Acta, 2011, 690, 94-100.	2.6	46
22	Characterization of dynamic solid phase DNA extraction from blood with magnetically controlled silica beads. Analyst, The, 2010, 135, 531.	1.7	44
23	Glass microfluidic devices with thin membrane voltage junctions for electrospray mass spectrometry. Lab on A Chip, 2005, 5, 619.	3.1	42
24	Miniaturized Electrophoresis: An Evolving Role in Laboratory Medicine. BioTechniques, 2001, 31, 1332-1353.	0.8	40
25	Expedited, Chemically Enhanced Sperm Cell Recovery from Cotton Swabs for Rape Kit Analysis. Journal of Forensic Sciences, 2007, 52, 800-805.	0.9	38
26	Microchip Laser-Induced Fluorescence Detection of Proteins at Submicrogram per Milliliter Levels Mediated by Dynamic Labeling under Pseudonative Conditions. Analytical Chemistry, 2004, 76, 4705-4714.	3.2	37
27	Extrinsic Fabryâ"Perot Interferometry for Noncontact Temperature Control of Nanoliter-Volume Enzymatic Reactions in Glass Microchips. Analytical Chemistry, 2005, 77, 1038-1045.	3.2	36
28	Protein digestion and phosphopeptide enrichment on a glass microchip. Analytica Chimica Acta, 2006, 564, 116-122.	2.6	35
29	The performance of a microchip-based fiber optic detection technique for the determination of Ca2+ ions in urine. Sensors and Actuators B: Chemical, 2005, 107, 24-31.	4.0	33
30	Dual-Domain Microchip-Based Process for Volume Reduction Solid Phase Extraction of Nucleic Acids from Dilute, Large Volume Biological Samples. Analytical Chemistry, 2010, 82, 5669-5678.	3.2	33
31	Enhanced Elution of Sperm from Cotton Swabs Via Enzymatic Digestion for Rape Kit Analysis*. Journal of Forensic Sciences, 2006, 51, 574-579.	0.9	30
32	A microchip sensor for calcium determination. Analytical and Bioanalytical Chemistry, 2006, 386, 1303-1312.	1.9	30
33	Microfluidic chip-based protein capture from human whole blood using octadecyl (C18) silica beads for nucleic acid analysis from large volume samples. Journal of Chromatography A, 2007, 1171, 29-36.	1.8	27
34	An active microfluidic system packaging technology. Sensors and Actuators B: Chemical, 2007, 122, 337-346.	4.0	26
35	Capillary electrophoresis with laser-induced fluorescence detection for laboratory diagnosis of galactosemia. Journal of Chromatography A, 2003, 1004, 29-37.	1.8	25
36	Quantification of SMN1 and SMN2 genes by capillary electrophoresis for diagnosis of spinal muscular atrophy. Electrophoresis, 2008, 29, 2904-2911.	1.3	25

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37	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. Forensic Science International: Genetics, 2014, 8, 84-89.	1.6	24
38	Towards a microchip-based chromatographic platform. PartÂ2: Sol-gel phases modified with polyelectrolyte multilayers for capillary electrochromatography. Electrophoresis, 2003, 24, 1261-1270.	1.3	23
39	Development of a micro-total analysis system (Î¼-TAS) for the determination of catecholamines. Analytical and Bioanalytical Chemistry, 2010, 398, 1909-1917.	1.9	23
40	Highly Resolved Sub-Terahertz Vibrational Spectroscopy of Biological Macromolecules and Cells. IEEE Sensors Journal, 2013, 13, 72-79.	2.4	23
41	Onâ€line sample stacking and shortâ€end injection CE for the determination of fluoxetine and norfluoxetine in plasma: Method development and validation using experimental designs. Electrophoresis, 2007, 28, 3290-3295.	1.3	21
42	Protein determination by microchip capillary electrophoresis using an asymmetric squarylium dye: Noncovalent labeling and nonequilibrium measurement of association constants. Electrophoresis, 2008, 29, 3446-3455.	1.3	21
43	Genotyping of Î±-thalassemia deletions using multiplex polymerase chain reactions and gold nanoparticle-filled capillary electrophoresis. Journal of Chromatography A, 2009, 1216, 1206-1212.	1.8	20
44	Integration of a Precolumn Fluorogenic Reaction, Separation, and Detection of Reduced Glutathione. Analytical Chemistry, 2010, 82, 7267-7273.	3.2	20
45	Exploiting sensitive laser-induced fluorescence detection on electrophoretic microchips for executing rapid clinical diagnostics. Luminescence, 2001, 16, 79-88.	1.5	19
46	Gellan beads as a transparent media for protein immobilization and affinity capture. Journal of Chromatography A, 2007, 1165, 86-92.	1.8	19
47	An automated micro-solid phase extraction device involving integrated high-pressure microvalves for genetic sample preparation. Biomedical Microdevices, 2009, 11, 935-942.	1.4	19
48	Evaluation of Microchip Electrophoresis as a Molecular Diagnostic Method for Duchenne Muscular Dystrophy. Clinical Chemistry, 2002, 48, 380-383.	1.5	18
49	Towards an integrated microfluidic device for spaceflight clinical diagnostics. Journal of Chromatography A, 2008, 1200, 198-203.	1.8	17
50	Insect cell physiology. Cytotechnology, 1997, 24, 1-9.	0.7	15
51	A Low-Cost, Low-Power Consumption, Miniature Laser-Induced Fluorescence System for DNA Detection on a Microfluidic Device. Clinics in Laboratory Medicine, 2007, 27, 173-181.	0.7	15
52	Extraction of C-reactive protein from serum on a microfluidic chip. Analytica Chimica Acta, 2006, 569, 195-202.	2.6	14
53	Use of a capillary electrophoresis instrument with laser-induced fluorescence detection for DNA quantitation. Journal of Chromatography A, 2006, 1113, 239-243.	1.8	12
54	The design and testing of a silica solâ€“gel-based hybridization array. Journal of Non-Crystalline Solids, 2004, 350, 39-45.	1.5	11

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55	Solvent effects on the electrical and optical properties of composite carbon nanotube/MEH-PPV films. Journal of Nanoparticle Research, 2010, 12, 405-415.	0.8	8
56	Organics Analyzer for Sampling Icy Surfaces: A liquid chromatograph-mass spectrometer for future in situ small body missions. , 2013, , .		8
57	Sub-terahertz vibrational spectroscopy for microRNA based diagnostic of ovarian cancer. Convergent Science Physical Oncology, 2016, 2, 045001.	2.6	8
58	Single nucleotide polymorphism detection in the hMSH2 gene using conformationâ€sensitive CE. Electrophoresis, 2008, 29, 634-640.	1.3	7
59	A simple method for the evaluation of microfluidic architecture using flow quantitation via a multiplexed fluidic resistance measurement. Lab on A Chip, 2010, 10, 1960.	3.1	7
60	Insect cell physiology. Cytotechnology, 1996, 20, 33-41.	0.7	6
61	Method for determining intracapillary solution temperatures: Application to sample zone heating for enhanced fluorescent labeling of proteins. Electrophoresis, 2006, 27, 1355-1362.	1.3	6
62	A Low-Cost, Low-Power, Consumption Miniature Laser-Induced Fluorescence System for DNA Detection on a Microfluidic Device. Journal of the Association for Laboratory Automation, 2006, 11, 254-259.	2.8	6
63	Singleâ€walled Carbon Nanotube Strings for Biosensor Development. Electroanalysis, 2011, 23, 2906-2914.	1.5	5
64	Photo-Induced Current Changes in Carbon Nanotube Films Incorporating CdSe Nanocrystals. Journal of Nanoelectronics and Optoelectronics, 2011, 6, 102-110.	0.1	4
65	Evaluation of Sieving Polymers for Fast, Reproducible Electrophoretic Analysis of Short Tandem Repeats (STR) in Capillaries. Journal of Forensic Sciences, 2005, 50, 1-7.	0.9	4
66	Evaluation of microchip electrophoresis as a molecular diagnostic method for Duchenne muscular dystrophy. Clinical Chemistry, 2002, 48, 380-3.	1.5	4
67	Sub-terahertz resonance spectroscopy of biological macromolecules and cells. Proceedings of SPIE, 2013, , .	0.8	3
68	Liquid chromatography-mass spectrometry interface for detection of extraterrestrial organics. , 2014, , .		3
69	Toward Effective PCR-Based Amplification of DNA on Microfabricated Chips. , 2001, 163, 191-204.		2
70	Rapid DNA Amplification in Glass Microdevices. , 2006, 339, 217-232.		2
71	Solid phase extraction on reverse phase chromatographic media subjected to stresses expected for extraterrestrial implementation. Analyst, The, 2022, 147, 3514-3524.	1.7	2
72	An innovative separation platform: electrophoretic microchip technology. Separation Science and Technology, 2001, 3, 529-554.	0.0	1

#	Article	IF	Citations
73	Nanomaterials enabled fiber optic networks. , 2011, , .		1
74	Title is missing!. Cytotechnology, 1997, 24, 1-9.	0.7	1
75	Insect cell physiology. Current Applications of Cell Culture Engineering, 1996, , 33-41.	0.1	0
76	Portable sub-terahertz resonance spectrometer combined with microfluidic sample cell. Proceedings of SPIE, 2013, , .	0.8	0
77	Clinical Applications of Microfluidic Devices. , 2003, , .		0
78	Effect of Nanocrystals on the Photoresponse of Carbon Nanotube Strings. Journal of Nanoelectronics and Optoelectronics, 2012, 7, 386-394.	0.1	0
79	Chitosan Stabilized Single Walled Carbon Nanotube Strings for Biosensor Development. Journal of Nanoscience and Nanotechnology, 2016, 16, 8626-8634.	0.9	0
80	Future planetary instrument capabilities made possible by micro- and nanotechnology. , 2019, , .		0