

Martin Dufva

List of Publications by Year in descending order

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129
papers

4,142
citations

101543

36
h-index

133252

59
g-index

135
all docs

135
docs citations

135
times ranked

6395
citing authors

#	ARTICLE	IF	CITATIONS
1	Photonic crystal fiber long-period gratings for biochemical sensing. <i>Optics Express</i> , 2006, 14, 8224.	3.4	383
2	Comparison of multiple DNA dyes for real-time PCR: effects of dye concentration and sequence composition on DNA amplification and melting temperature. <i>Nucleic Acids Research</i> , 2007, 35, e127.	14.5	244
3	Functionalization of poly(methyl methacrylate) (PMMA) as a substrate for DNA microarrays. <i>Nucleic Acids Research</i> , 2004, 32, 9e-9.	14.5	172
4	Fabrication of high quality microarrays. <i>New Biotechnology</i> , 2005, 22, 173-184.	2.7	162
5	Fabrication of scalable and structured tissue engineering scaffolds using water dissolvable sacrificial 3D printed moulds. <i>Materials Science and Engineering C</i> , 2015, 55, 569-578.	7.3	160
6	Homogeneous circle-to-circle amplification for real-time optomagnetic detection of SARS-CoV-2 RdRp coding sequence. <i>Biosensors and Bioelectronics</i> , 2020, 165, 112356.	10.1	128
7	Microfluidic dissolved oxygen gradient generator biochip as a useful tool in bacterial biofilm studies. <i>Lab on A Chip</i> , 2010, 10, 2162.	6.0	105
8	A multi-chamber microfluidic intestinal barrier model using Caco-2 cells for drug transport studies. <i>PLoS ONE</i> , 2018, 13, e0197101.	2.5	90
9	Immobilisation of DNA to polymerised SU-8 photoresist. <i>Biosensors and Bioelectronics</i> , 2006, 21, 1327-1332.	10.1	81
10	Reverse transcription using random pentadecamer primers increases yield and quality of resulting cDNA. <i>BioTechniques</i> , 2006, 40, 649-657.	1.8	79
11	Fabrication of scalable tissue engineering scaffolds with dual-pore microarchitecture by combining 3D printing and particle leaching. <i>Materials Science and Engineering C</i> , 2016, 61, 180-189.	7.3	74
12	One-step immobilization of aminated and thiolated DNA onto poly(methylmethacrylate) (PMMA) substrates. <i>Lab on A Chip</i> , 2004, 4, 191.	6.0	72
13	Transparent polymeric cell culture chip with integrated temperature control and uniform media perfusion. <i>BioTechniques</i> , 2006, 40, 368-376.	1.8	72
14	Three-dimensional fabrication of thick and densely populated soft constructs with complex and actively perfused channel network. <i>Acta Biomaterialia</i> , 2018, 65, 174-184.	8.3	72
15	On-chip magnetic bead microarray using hydrodynamic focusing in a passive magnetic separator. <i>Lab on A Chip</i> , 2005, 5, 1315.	6.0	69
16	CRISPR-Cas12a based internal negative control for nonspecific products of exponential rolling circle amplification. <i>Nucleic Acids Research</i> , 2020, 48, e30-e30.	14.5	65
17	High-throughput sequencing enhanced phage display enables the identification of patient-specific epitope motifs in serum. <i>Scientific Reports</i> , 2015, 5, 12913.	3.3	62
18	A biocompatible micro cell culture chamber (1/4CCC) for the culturing and on-line monitoring of eukaryote cells. <i>Lab on A Chip</i> , 2006, 6, 1045-1051.	6.0	57

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19	Whole genome expression profiling using DNA microarray for determining biocompatibility of polymeric surfaces. <i>Molecular BioSystems</i> , 2006, 2, 421.	2.9	57
20	A Sensitive Alternative for MicroRNA In Situ Hybridizations Using Probes of 2'-O-Methyl RNA + LNA. <i>Journal of Histochemistry and Cytochemistry</i> , 2011, 59, 661-672.	2.5	55
21	3D Printed Silicone Hydrogel Scaffold with Enhanced Physicochemical Properties. <i>Biomacromolecules</i> , 2016, 17, 1321-1329.	5.4	53
22	Functionalization of SU-8 photoresist surfaces with IgG proteins. <i>Applied Surface Science</i> , 2008, 255, 2896-2902.	6.1	50
23	Multi-channel peristaltic pump for microfluidic applications featuring monolithic PDMS inlay. <i>Lab on A Chip</i> , 2009, 9, 3003.	6.0	50
24	Multichannel Bipotentiostat Integrated With a Microfluidic Platform for Electrochemical Real-Time Monitoring of Cell Cultures. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2012, 6, 498-507.	4.0	50
25	Epstein-Barr virus nuclear antigen 5 interacts with HAX-1, a possible component of the B-cell receptor signalling pathway. <i>Journal of General Virology</i> , 2001, 82, 1581-1587.	2.9	50
26	The Role of Paracrine and Autocrine Signaling in the Early Phase of Adipogenic Differentiation of Adipose-derived Stem Cells. <i>PLoS ONE</i> , 2013, 8, e63638.	2.5	46
27	Bioimpedance monitoring of 3D cell culturing Complementary electrode configurations for enhanced spatial sensitivity. <i>Biosensors and Bioelectronics</i> , 2015, 63, 72-79.	10.1	44
28	Finding the Needle in the Haystack the Use of Microfluidic Droplet Technology to Identify Vitamin-Secreting Lactic Acid Bacteria. <i>MBio</i> , 2017, 8, .	4.1	44
29	Introduction to Microarray Technology. <i>Methods in Molecular Biology</i> , 2009, 529, 1-22.	0.9	42
30	Diagnostic and analytical applications of protein microarrays. <i>Expert Review of Proteomics</i> , 2005, 2, 41-48.	3.0	39
31	Cell motility, morphology, viability and proliferation in response to nanotopography on silicon black. <i>Nanoscale</i> , 2012, 4, 3739.	5.6	39
32	Capture of DNA in microfluidic channel using magnetic beads: Increasing capture efficiency with integrated microfluidic mixer. <i>Journal of Magnetism and Magnetic Materials</i> , 2007, 311, 396-400.	2.3	38
33	Enhanced Differentiation of Human Embryonic Stem Cells Toward Definitive Endoderm on Ultrahigh Aspect Ratio Nanopillars. <i>Advanced Functional Materials</i> , 2016, 26, 815-823.	14.9	38
34	Detection of analyte binding to microarrays using gold nanoparticle labels and a desktop scanner. <i>Lab on A Chip</i> , 2003, 3, 329.	6.0	37
35	Pinched flow fractionation devices for detection of single nucleotide polymorphisms. <i>Lab on A Chip</i> , 2008, 8, 818.	6.0	37
36	Direct immobilization of DNA probes on non-modified plastics by UV irradiation and integration in microfluidic devices for rapid bioassay. <i>Analytical and Bioanalytical Chemistry</i> , 2012, 402, 741-748.	3.7	36

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37	Magnetoresistive sensor for real-time single nucleotide polymorphism genotyping. <i>Biosensors and Bioelectronics</i> , 2014, 52, 445-451.	10.1	36
38	Characterization of an inexpensive, nontoxic, and highly sensitive microarray substrate. <i>BioTechniques</i> , 2004, 37, 286-296.	1.8	33
39	Multi-stringency wash of partially hybridized 60-mer probes reveals that the stringency along the probe decreases with distance from the microarray surface. <i>Nucleic Acids Research</i> , 2008, 36, e132-e132.	14.5	33
40	A self-contained, programmable microfluidic cell culture system with real-time microscopy access. <i>Biomedical Microdevices</i> , 2012, 14, 385-399.	2.8	33
41	An inexpensive and simple method for thermally stable immobilization of DNA on an unmodified glass surface: UV linking of poly(T)10-poly(C)10 tagged DNA probes. <i>BioTechniques</i> , 2008, 45, 261-271.	1.8	32
42	Polymer photonic crystal dye lasers as Optofluidic Cell Sensors. <i>Optics Express</i> , 2009, 17, 2722.	3.4	32
43	Simultaneous Profiling of DNA Mutation and Methylation by Melting Analysis Using Magnetoresistive Biosensor Array. <i>ACS Nano</i> , 2017, 11, 8864-8870.	14.6	32
44	Poly(Dimethylsiloxane) (PDMS) Affects Gene Expression in PC12 Cells Differentiating into Neuronal-Like Cells. <i>PLoS ONE</i> , 2013, 8, e53107.	2.5	32
45	Use of a multi-thermal washer for DNA microarrays simplifies probe design and gives robust genotyping assays. <i>Nucleic Acids Research</i> , 2008, 36, e10-e10.	14.5	31
46	Microcontainers for oral insulin delivery – In vitro studies of permeation enhancement. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2019, 143, 98-105.	4.3	31
47	Bioelectrochemical probing of intracellular redox processes in living yeast cells – application of redox polymer wiring in a microfluidic environment. <i>Analytical and Bioanalytical Chemistry</i> , 2013, 405, 3847-3858.	3.7	29
48	Quantitative microarray pesticide analysis. <i>Journal of Immunological Methods</i> , 2004, 286, 219-229.	1.4	28
49	Denaturation strategies for detection of double stranded PCR products on GMR magnetic biosensor array. <i>Biosensors and Bioelectronics</i> , 2017, 93, 155-160.	10.1	28
50	Interconnection blocks: a method for providing reusable, rapid, multiple, aligned and planar microfluidic interconnections. <i>Journal of Micromechanics and Microengineering</i> , 2009, 19, 035021.	2.6	27
51	Differentiation of human-induced pluripotent stem cell under flow conditions to mature hepatocytes for liver tissue engineering. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2018, 12, 1273-1284.	2.7	26
52	The MainSTREAM Component Platform. <i>Journal of the Association for Laboratory Automation</i> , 2013, 18, 212-228.	2.8	25
53	Detection of mutations using microarrays of poly(C)10 poly(T)10 modified DNA probes immobilized on agarose films. <i>Analytical Biochemistry</i> , 2006, 352, 188-197.	2.4	24
54	High frame rate multi-resonance imaging refractometry with distributed feedback dye laser sensor. <i>Light: Science and Applications</i> , 2015, 4, e269-e269.	16.6	24

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55	Modular microfluidic system as a model of cystic fibrosis airways. <i>Biomicrofluidics</i> , 2012, 6, 34109.	2.4	23
56	Microfluidic DNA microarrays in PMMA chips: streamlined fabrication via simultaneous DNA immobilization and bonding activation by brief UV exposure. <i>Biomedical Microdevices</i> , 2010, 12, 673-681.	2.8	22
57	Collagen Type I Improves the Differentiation of Human Embryonic Stem Cells towards Definitive Endoderm. <i>PLoS ONE</i> , 2015, 10, e0145389.	2.5	22
58	The FAST Pump, a low-cost, easy to fabricate, SLA-3D-printed peristaltic pump for multi-channel systems in any lab. <i>HardwareX</i> , 2020, 8, e00115.	2.2	22
59	On-chip magnetic bead-based DNA melting curve analysis using a magnetoresistive sensor. <i>Journal of Magnetism and Magnetic Materials</i> , 2015, 380, 215-220.	2.3	20
60	Sensitive on-chip quantitative real-time PCR performed on an adaptable and robust platform. <i>Biomedical Microdevices</i> , 2008, 10, 769-776.	2.8	19
61	A compact multifunctional microfluidic platform for exploring cellular dynamics in real-time using electrochemical detection. <i>RSC Advances</i> , 2014, 4, 63761-63771.	3.6	19
62	An impedance method for spatial sensing of 3D cell constructs “ towards applications in tissue engineering. <i>Analyst</i> , The, 2015, 140, 6079-6088.	3.5	19
63	Large-scale spontaneous self-organization and maturation of skeletal muscle tissues on ultra-compliant gelatin hydrogel substrates. <i>Scientific Reports</i> , 2020, 10, 13305.	3.3	19
64	Modular microfluidic systems using reversibly attached PDMS fluid control modules. <i>Journal of Micromechanics and Microengineering</i> , 2013, 23, 055011.	2.6	18
65	Micro-droplet arrays for micro-compartmentalization using an air/water interface. <i>Lab on A Chip</i> , 2018, 18, 2797-2805.	6.0	18
66	SOX2 and OCT4 mRNA-Expressing Cells, Detected by Molecular Beacons, Localize to the Center of Neurospheres during Differentiation. <i>PLoS ONE</i> , 2013, 8, e73669.	2.5	18
67	Quantitative assessment of factors affecting the sensitivity of a competitive immunomicroarray for pesticide detection. <i>BioTechniques</i> , 2003, 35, 1044-1051.	1.8	17
68	Increasing the specificity and function of DNA microarrays by processing arrays at different stringencies. <i>Analytical and Bioanalytical Chemistry</i> , 2009, 395, 669-677.	3.7	17
69	Tracking neuronal marker expression inside living differentiating cells using molecular beacons. <i>Frontiers in Cellular Neuroscience</i> , 2013, 7, 266.	3.7	17
70	One-step fabrication of microfluidic chips with in-plane, adhesive-free interconnections. <i>Journal of Micromechanics and Microengineering</i> , 2010, 20, 037001.	2.6	16
71	HistoFlex™ a microfluidic device providing uniform flow conditions enabling highly sensitive, reproducible and quantitative in situ hybridizations. <i>Lab on A Chip</i> , 2011, 11, 3896.	6.0	16
72	Impedance Spectroscopic Characterisation of Porosity in 3D Cell Culture Scaffolds with Different Channel Networks. <i>Electroanalysis</i> , 2015, 27, 193-199.	2.9	16

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73	Linear epitope mapping of peanut allergens demonstrates individualized and persistent antibody-binding patterns. <i>Journal of Allergy and Clinical Immunology</i> , 2016, 138, 1728-1730.	2.9	16
74	In situ electrochemical analysis of alkaline phosphatase activity in 3D cell cultures. <i>Electrochimica Acta</i> , 2020, 359, 136951.	5.2	16
75	Detection of mutations in the β -globin gene by colorimetric staining of DNA microarrays visualized by a flatbed scanner. <i>Analytical Biochemistry</i> , 2007, 360, 169-171.	2.4	15
76	Peptide Inhibitors of the α -Cobratoxin β -Nicotinic Acetylcholine Receptor Interaction. <i>Journal of Medicinal Chemistry</i> , 2020, 63, 13709-13718.	6.4	15
77	Micro-flow-injection analysis (μ FIA) immunoassay of herbicide residue 2,6-dichlorobenzamide β towards automated at-line monitoring using modular microfluidics. <i>Analyst</i> , The, 2015, 140, 1616-1623.	3.5	14
78	Characterization of thin gelatin hydrogel membranes with balloon properties for dynamic tissue engineering. <i>Biopolymers</i> , 2019, 110, e23241.	2.4	13
79	Interconnection blocks with minimal dead volumes permitting planar interconnection to thin microfluidic devices. <i>Microfluidics and Nanofluidics</i> , 2010, 9, 87-93.	2.2	12
80	A polymer chip-integrable piezoelectric micropump with low backpressure dependence. <i>RSC Advances</i> , 2015, 5, 49996-50000.	3.6	11
81	Controlling fluid flow to improve cell seeding uniformity. <i>PLoS ONE</i> , 2018, 13, e0207211.	2.5	11
82	Droplet-based microfluidics as a future tool for strain improvement in lactic acid bacteria. <i>FEMS Microbiology Letters</i> , 2018, 365, .	1.8	11
83	Epstein-Barr virus nuclear antigen 5 inhibits pre-mRNA cleavage and polyadenylation. <i>Nucleic Acids Research</i> , 2002, 30, 2131-2143.	14.5	10
84	Fabrication of DNA Microarray. <i>Methods in Molecular Biology</i> , 2009, 529, 63-79.	0.9	10
85	Microchips for Cell-Based Assays. <i>Methods in Molecular Biology</i> , 2009, 509, 135-144.	0.9	10
86	Two-dimensional salt and temperature DNA denaturation analysis using a magnetoresistive sensor. <i>Lab on A Chip</i> , 2017, 17, 2256-2263.	6.0	10
87	Gene Expression Analysis Using Agilent DNA Microarrays. <i>Methods in Molecular Biology</i> , 2009, 529, 133-145.	0.9	10
88	Microfluidic Device for Creating Ionic Strength Gradients over DNA Microarrays for Efficient DNA Melting Studies and Assay Development. <i>PLoS ONE</i> , 2009, 4, e4808.	2.5	10
89	Characterization of a patch-clamp microchannel array towards neuronal networks analysis. <i>Microfluidics and Nanofluidics</i> , 2010, 9, 963-972.	2.2	9
90	Gold Nanoparticle-Based Sensors Activated by External Radio Frequency Fields. <i>Small</i> , 2015, 11, 248-256.	10.0	9

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91	Monitoring intra- and extracellular redox capacity of intact barley aleurone layers responding to phytohormones. <i>Analytical Biochemistry</i> , 2016, 515, 1-8.	2.4	9
92	Comment on Wong and Medrano's "Real-time PCR for mRNA quantification" • <i>BioTechniques</i> 39:75-85 (July 2005). <i>BioTechniques</i> , 2005, 39, 484.	1.8	8
93	3D Printed Stackable Titer Plate Inserts Supporting Three Interconnected Tissue Models for Drug Transport Studies. <i>Advanced Biology</i> , 2020, 4, 1900289.	3.0	8
94	Optimal Homogenization of Perfusion Flows in Microfluidic Bio-Reactors: A Numerical Study. <i>PLoS ONE</i> , 2011, 6, e14574.	2.5	8
95	Superparamagnetic bead interactions with functionalized surfaces characterized by an immunomicroarray. <i>Acta Biomaterialia</i> , 2010, 6, 3936-3946.	8.3	7
96	Refractometric monitoring of dissolution and fluid flow with distributed feedback dye laser sensor. <i>Optics Express</i> , 2015, 23, 6562.	3.4	7
97	Customized 3D-printed stackable cell culture inserts tailored with bioactive membranes. <i>Scientific Reports</i> , 2022, 12, 3694.	3.3	7
98	Investigation of Parameters that Affect the Success Rate of Microarray-Based Allele-Specific Hybridization Assays. <i>PLoS ONE</i> , 2011, 6, e14777.	2.5	5
99	Allergology on a chip. <i>Clinical and Experimental Allergy</i> , 2007, 37, 1736-1737.	2.9	4
100	Magneto-resistive sensors for measurements of DNA hybridization kinetics " effect of TINA modifications. <i>Scientific Reports</i> , 2017, 7, 41940.	3.3	4
101	Editorial: Medical and Industrial Applications of Microfluidic-Based Cell/Tissue Culture and Organs-on-a-Chip. <i>Frontiers in Bioengineering and Biotechnology</i> , 2019, 7, 151.	4.1	4
102	Impedance spectra of patch clamp scenarios for single cells immobilized on a lab-on-a-chip. <i>Microfluidics and Nanofluidics</i> , 2014, 17, 263-274.	2.2	3
103	Detection of Small Noncoding RNAs by In Situ Hybridization Using Probes of 2'-O-Methyl RNA + LNA. <i>Methods in Molecular Biology</i> , 2014, 1173, 113-121.	0.9	3
104	Immobilisation of barley aleurone layers enables parallelisation of assays and analysis of transient gene expression in single cells. <i>Plant Physiology and Biochemistry</i> , 2017, 118, 71-76.	5.8	3
105	Chip Based Electroanalytical Systems for Monitoring Cellular Dynamics. <i>NATO Science for Peace and Security Series A: Chemistry and Biology</i> , 2010, , 399-426.	0.5	3
106	Open access will deter illegal file-sharing. <i>Nature</i> , 2003, 426, 15-15.	27.8	2
107	Photolithographic Patterning of FluorAcryl for Biphasic Microwell-Based Digital Bioassays and Selection of Bacteria. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 43914-43924.	8.0	2
108	Genotyping of Mutation in the Beta-Globin Gene Using DNA Microarrays. <i>Methods in Molecular Biology</i> , 2009, 509, 47-56.	0.9	2

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109	Target Preparation for Genotyping Specific Genes or Gene Segments. <i>Methods in Molecular Biology</i> , 2009, 529, 147-155.	0.9	2
110	Optimization of Oligonucleotide DNA Microarrays. , 2007, 381, 93-103.		1
111	Driving gradual endogenous c-myc overexpression by flow-sorting: intracellular signaling and tumor cell phenotype correlate with oncogene expression. <i>Archives of Toxicology</i> , 2009, 83, 1061-1074.	4.2	1
112	Cell Culture Microfluidic Biochips: Experimental Throughput Maximization. , 2011, , .		1
113	Ligation-based mutation detection and RCA in surface un-modified OSTE+ polymer microfluidic chambers. , 2013, , .		1
114	Real-time direct cell concentration and viability determination using a fully automated microfluidic platform for standalone process monitoring. <i>Analyst, The</i> , 2015, 140, 4007-4020.	3.5	1
115	cIAP1/2 antagonization by SMAC mimetic induces nonécanonical NFéB mediated T_H17écell homotypic interactions and increases their resistance to shear stress. <i>European Journal of Immunology</i> , 2021, 51, 2097-2099.	2.9	1
116	Genotyping of Mutations in the Beta-Globin Gene Using Allele Specific Hybridization. <i>Methods in Molecular Biology</i> , 2009, 529, 157-170.	0.9	1
117	Droplet-based microfluidics as a future tool for strain improvement in lactic acid bacteria. <i>FEMS Microbiology Letters</i> , 2019, 366, i10-i16.	1.8	1
118	A Biomicrofluidic Screening Platform for Dysfunctional EndotheliuméTargeted Nanoparticles and Therapeutics. <i>Advanced NanoBiomed Research</i> , 0, , 2100092.	3.6	1
119	Multithfrml dna micro-array chip for rapid dna melting temperature measurement and advanced snp discrimination. , 0, , .		0
120	Comment on éMicrofluidics meets cell biology: bridging the gap by validation and application of microscale techniques for cell biological assaysé. <i>BioEssays</i> , 2009, 31, 255-255.	2.5	0
121	RNA Preparation and Characterization for Gene Expression Studies. <i>Methods in Molecular Biology</i> , 2009, 529, 115-132.	0.9	0
122	Polymer photonic crystal dye lasers as label free evanescent cell sensors. <i>Proceedings of SPIE</i> , 2009, , .	0.8	0
123	Perfusion Based Cell Culture Chips. <i>NATO Science for Peace and Security Series A: Chemistry and Biology</i> , 2010, , 427-452.	0.5	0
124	Nanoimprinted distributed feedback dye laser sensor for real-time imaging of small molecule diffusion. , 2014, , .		0
125	Quantification of Small Molecules Using Microarray Technology. <i>Methods in Molecular Biology</i> , 2007, 382, 249-258.	0.9	0
126	Photonic crystal fiber gratings: prospects for label-free biosensors. , 2007, , .		0

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127	Nanoimprinted Distributed Feedback Dye Laser Sensors for High Frame Rate Refractometric Imaging of Dissolution and Fluid Flow. , 2015, , .		0
128	Accessible, fast and easy fabrication of hydrophilic-in-hydrophobic microdroplet arrays. PLoS ONE, 2022, 17, e0263282.	2.5	0
129	Optimization of Oligonucleotide DNA Microarrays. , 0, , 93-104.		0