

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	Accessible, fast and easy fabrication of hydrophilic-in-hydrophobic microdroplet arrays. <i>PLoS ONE</i> , 2022, 17, e0263282.	2.5	0
2	Customized 3D-printed stackable cell culture inserts tailored with bioactive membranes. <i>Scientific Reports</i> , 2022, 12, 3694.	3.3	7
3	clAP1/2 antagonization by SMAC mimetic induces non-canonical NF- κ B mediated T _H 17 cell homotypic interactions and increases their resistance to shear stress. <i>European Journal of Immunology</i> , 2021, 51, 2097-2099.	2.9	1
4	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
5	Peptide Inhibitors of the α -Cobratoxin-Nicotinic Acetylcholine Receptor Interaction. <i>Journal of Medicinal Chemistry</i> , 2020, 63, 13709-13718.	6.4	15
6	In situ electrochemical analysis of alkaline phosphatase activity in 3D cell cultures. <i>Electrochimica Acta</i> , 2020, 359, 136951.	5.2	16
7	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
8	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
9	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
10	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
11	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
12	Characterization of thin gelatin hydrogel membranes with balloon properties for dynamic tissue engineering. <i>Biopolymers</i> , 2019, 110, e23241.	2.4	13
13	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
14	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
15	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
16	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
17	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
18	Controlling fluid flow to improve cell seeding uniformity. <i>PLoS ONE</i> , 2018, 13, e0207211.	2.5	11

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19	Droplet-based microfluidics as a future tool for strain improvement in lactic acid bacteria. FEMS Microbiology Letters, 2018, 365, .	1.8	11
20	A multi-chamber microfluidic intestinal barrier model using Caco-2 cells for drug transport studies. PLoS ONE, 2018, 13, e0197101.	2.5	90
21	Micro-droplet arrays for micro-compartmentalization using an air/water interface. Lab on A Chip, 2018, 18, 2797-2805.	6.0	18
22	Magneto-resistive sensors for measurements of DNA hybridization kinetics – effect of TINA modifications. Scientific Reports, 2017, 7, 41940.	3.3	4
23	Immobilisation of barley aleurone layers enables parallelisation of assays and analysis of transient gene expression in single cells. Plant Physiology and Biochemistry, 2017, 118, 71-76.	5.8	3
24	Two-dimensional salt and temperature DNA denaturation analysis using a magneto-resistive sensor. Lab on A Chip, 2017, 17, 2256-2263.	6.0	10
25	Simultaneous Profiling of DNA Mutation and Methylation by Melting Analysis Using Magneto-resistive Biosensor Array. ACS Nano, 2017, 11, 8864-8870.	14.6	32
26	Denaturation strategies for detection of double stranded PCR products on GMR magnetic biosensor array. Biosensors and Bioelectronics, 2017, 93, 155-160.	10.1	28
27	Finding the Needle in the Haystack – the Use of Microfluidic Droplet Technology to Identify Vitamin-Secreting Lactic Acid Bacteria. MBio, 2017, 8, .	4.1	44
28	Enhanced Differentiation of Human Embryonic Stem Cells Toward Definitive Endoderm on Ultrahigh Aspect Ratio Nanopillars. Advanced Functional Materials, 2016, 26, 815-823.	14.9	38
29	Monitoring intra- and extracellular redox capacity of intact barley aleurone layers responding to phytohormones. Analytical Biochemistry, 2016, 515, 1-8.	2.4	9
30	Linear epitope mapping of peanut allergens demonstrates individualized and persistent antibody-binding patterns. Journal of Allergy and Clinical Immunology, 2016, 138, 1728-1730.	2.9	16
31	3D Printed Silicone – Hydrogel Scaffold with Enhanced Physicochemical Properties. Biomacromolecules, 2016, 17, 1321-1329.	5.4	53
32	Fabrication of scalable tissue engineering scaffolds with dual-pore microarchitecture by combining 3D printing and particle leaching. Materials Science and Engineering C, 2016, 61, 180-189.	7.3	74
33	Impedance Spectroscopic Characterisation of Porosity in 3D Cell Culture Scaffolds with Different Channel Networks. Electroanalysis, 2015, 27, 193-199.	2.9	16
34	Collagen Type I Improves the Differentiation of Human Embryonic Stem Cells towards Definitive Endoderm. PLoS ONE, 2015, 10, e0145389.	2.5	22
35	A polymer chip-integrable piezoelectric micropump with low backpressure dependence. RSC Advances, 2015, 5, 49996-50000.	3.6	11
36	On-chip magnetic bead-based DNA melting curve analysis using a magneto-resistive sensor. Journal of Magnetism and Magnetic Materials, 2015, 380, 215-220.	2.3	20

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37	Micro-flow-injection analysis (µFIA) immunoassay of herbicide residue 2,6-dichlorobenzamide “ towards automated at-line monitoring using modular microfluidics. <i>Analyst, The</i> , 2015, 140, 1616-1623.	3.5	14
38	Refractometric monitoring of dissolution and fluid flow with distributed feedback dye laser sensor. <i>Optics Express</i> , 2015, 23, 6562.	3.4	7
39	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
40	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
41	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
42	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
43	An impedance method for spatial sensing of 3D cell constructs “ towards applications in tissue engineering. <i>Analyst, The</i> , 2015, 140, 6079-6088.	3.5	19
44	Gold Nanoparticle-Based Sensors Activated by External Radio Frequency Fields. <i>Small</i> , 2015, 11, 248-256.	10.0	9
45	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
46	Nanoimprinted Distributed Feedback Dye Laser Sensors for High Frame Rate Refractometric Imaging of Dissolution and Fluid Flow. , 2015, , .		0
47	Nanoimprinted distributed feedback dye laser sensor for real-time imaging of small molecule diffusion. , 2014, , .		0
48	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
49	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
50	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
51	Magnetoresistive sensor for real-time single nucleotide polymorphism genotyping. <i>Biosensors and Bioelectronics</i> , 2014, 52, 445-451.	10.1	36
52	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
53	Modular microfluidic systems using reversibly attached PDMS fluid control modules. <i>Journal of Micromechanics and Microengineering</i> , 2013, 23, 055011.	2.6	18
54	Ligation-based mutation detection and RCA in surface un-modified OSTE “ polymer microfluidic chambers. , 2013, , .		1

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55	The MainSTREAM Component Platform. Journal of the Association for Laboratory Automation, 2013, 18, 212-228.	2.8	25
56	Tracking neuronal marker expression inside living differentiating cells using molecular beacons. Frontiers in Cellular Neuroscience, 2013, 7, 266.	3.7	17
57	Poly(Dimethylsiloxane) (PDMS) Affects Gene Expression in PC12 Cells Differentiating into Neuronal-Like Cells. PLoS ONE, 2013, 8, e53107.	2.5	32
58	The Role of Paracrine and Autocrine Signaling in the Early Phase of Adipogenic Differentiation of Adipose-derived Stem Cells. PLoS ONE, 2013, 8, e63638.	2.5	46
59	SOX2 and OCT4 mRNA-Expressing Cells, Detected by Molecular Beacons, Localize to the Center of Neurospheres during Differentiation. PLoS ONE, 2013, 8, e73669.	2.5	18
60	Modular microfluidic system as a model of cystic fibrosis airways. Biomicrofluidics, 2012, 6, 34109.	2.4	23
61	Multichannel Bipotentiostat Integrated With a Microfluidic Platform for Electrochemical Real-Time Monitoring of Cell Cultures. IEEE Transactions on Biomedical Circuits and Systems, 2012, 6, 498-507.	4.0	50
62	Cell motility, morphology, viability and proliferation in response to nanotopography on silicon black. Nanoscale, 2012, 4, 3739.	5.6	39
63	A self-contained, programmable microfluidic cell culture system with real-time microscopy access. Biomedical Microdevices, 2012, 14, 385-399.	2.8	33
64	Direct immobilization of DNA probes on non-modified plastics by UV irradiation and integration in microfluidic devices for rapid bioassay. Analytical and Bioanalytical Chemistry, 2012, 402, 741-748.	3.7	36
65	HistoFlex™ a microfluidic device providing uniform flow conditions enabling highly sensitive, reproducible and quantitative in situ hybridizations. Lab on A Chip, 2011, 11, 3896.	6.0	16
66	Investigation of Parameters that Affect the Success Rate of Microarray-Based Allele-Specific Hybridization Assays. PLoS ONE, 2011, 6, e14777.	2.5	5
67	Cell Culture Microfluidic Biochips: Experimental Throughput Maximization. , 2011, , .		1
68	A Sensitive Alternative for MicroRNA In Situ Hybridizations Using Probes of 2'-O-Methyl RNA + LNA. Journal of Histochemistry and Cytochemistry, 2011, 59, 661-672.	2.5	55
69	Optimal Homogenization of Perfusion Flows in Microfluidic Bio-Reactors: A Numerical Study. PLoS ONE, 2011, 6, e14574.	2.5	8
70	Interconnection blocks with minimal dead volumes permitting planar interconnection to thin microfluidic devices. Microfluidics and Nanofluidics, 2010, 9, 87-93.	2.2	12
71	Characterization of a patch-clamp microchannel array towards neuronal networks analysis. Microfluidics and Nanofluidics, 2010, 9, 963-972.	2.2	9
72	Microfluidic DNA microarrays in PMMA chips: streamlined fabrication via simultaneous DNA immobilization and bonding activation by brief UV exposure. Biomedical Microdevices, 2010, 12, 673-681.	2.8	22

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73	Superparamagnetic bead interactions with functionalized surfaces characterized by an immunomicroarray. <i>Acta Biomaterialia</i> , 2010, 6, 3936-3946.	8.3	7
74	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
75	Perfusion Based Cell Culture Chips. <i>NATO Science for Peace and Security Series A: Chemistry and Biology</i> , 2010, , 427-452.	0.5	0
76	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
77	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
78	Comment on "Microfluidics meets cell biology: bridging the gap by validation and application of microscale techniques for cell biological assays". <i>BioEssays</i> , 2009, 31, 255-255.	2.5	0
79	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
80	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
81	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
82	Polymer photonic crystal dye lasers as Optofluidic Cell Sensors. <i>Optics Express</i> , 2009, 17, 2722.	3.4	32
83	Fabrication of DNA Microarray. <i>Methods in Molecular Biology</i> , 2009, 529, 63-79.	0.9	10
84	Microchips for Cell-Based Assays. <i>Methods in Molecular Biology</i> , 2009, 509, 135-144.	0.9	10
85	Introduction to Microarray Technology. <i>Methods in Molecular Biology</i> , 2009, 529, 1-22.	0.9	42
86	Multi-channel peristaltic pump for microfluidic applications featuring monolithic PDMS inlay. <i>Lab on A Chip</i> , 2009, 9, 3003.	6.0	50
87	RNA Preparation and Characterization for Gene Expression Studies. <i>Methods in Molecular Biology</i> , 2009, 529, 115-132.	0.9	0
88	Polymer photonic crystal dye lasers as label free evanescent cell sensors. <i>Proceedings of SPIE</i> , 2009, , .	0.8	0
89	Genotyping of Mutation in the Beta-Globin Gene Using DNA Microarrays. <i>Methods in Molecular Biology</i> , 2009, 509, 47-56.	0.9	2
90	Target Preparation for Genotyping Specific Genes or Gene Segments. <i>Methods in Molecular Biology</i> , 2009, 529, 147-155.	0.9	2

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91	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
92	Gene Expression Analysis Using Agilent DNA Microarrays. <i>Methods in Molecular Biology</i> , 2009, 529, 133-145.	0.9	10
93	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
94	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
95	Functionalization of SU-8 photoresist surfaces with IgG proteins. <i>Applied Surface Science</i> , 2008, 255, 2896-2902.	6.1	50
96	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
97	Pinched flow fractionation devices for detection of single nucleotide polymorphisms. <i>Lab on A Chip</i> , 2008, 8, 818.	6.0	37
98	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
99	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
100	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
101	Optimization of Oligonucleotide DNA Microarrays. , 2007, 381, 93-103.		1
102	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
103	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
104	Allergology on a chip. <i>Clinical and Experimental Allergy</i> , 2007, 37, 1736-1737.	2.9	4
105	Quantification of Small Molecules Using Microarray Technology. <i>Methods in Molecular Biology</i> , 2007, 382, 249-258.	0.9	0
106	Photonic crystal fiber gratings: prospects for label-free biosensors. , 2007, , .		0
107	A biocompatible micro cell culture chamber ($\frac{1}{4}$ CCC) for the culturing and on-line monitoring of eukaryote cells. <i>Lab on A Chip</i> , 2006, 6, 1045-1051.	6.0	57
108	Whole genome expression profiling using DNA microarray for determining biocompatibility of polymeric surfaces. <i>Molecular BioSystems</i> , 2006, 2, 421.	2.9	57

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109	Reverse transcription using random pentadecamer primers increases yield and quality of resulting cDNA. <i>BioTechniques</i> , 2006, 40, 649-657.	1.8	79
110	Photonic crystal fiber long-period gratings for biochemical sensing. <i>Optics Express</i> , 2006, 14, 8224.	3.4	383
111	Transparent polymeric cell culture chip with integrated temperature control and uniform media perfusion. <i>BioTechniques</i> , 2006, 40, 368-376.	1.8	72
112	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
113	Immobilisation of DNA to polymerised SU-8 photoresist. <i>Biosensors and Bioelectronics</i> , 2006, 21, 1327-1332.	10.1	81
114	Fabrication of high quality microarrays. <i>New Biotechnology</i> , 2005, 22, 173-184.	2.7	162
115	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
116	Diagnostic and analytical applications of protein microarrays. <i>Expert Review of Proteomics</i> , 2005, 2, 41-48.	3.0	39
117	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
118	Characterization of an inexpensive, nontoxic, and highly sensitive microarray substrate. <i>BioTechniques</i> , 2004, 37, 286-296.	1.8	33
119	Quantitative microarray pesticide analysis. <i>Journal of Immunological Methods</i> , 2004, 286, 219-229.	1.4	28
120	Functionalization of poly(methyl methacrylate) (PMMA) as a substrate for DNA microarrays. <i>Nucleic Acids Research</i> , 2004, 32, 9e-9.	14.5	172
121	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
122	Open access will deter illegal file-sharing. <i>Nature</i> , 2003, 426, 15-15.	27.8	2
123	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
124	Quantitative assessment of factors affecting the sensitivity of a competitive immunomicroarray for pesticide detection. <i>BioTechniques</i> , 2003, 35, 1044-1051.	1.8	17
125	Epstein-Barr virus nuclear antigen 5 inhibits pre-mRNA cleavage and polyadenylation. <i>Nucleic Acids Research</i> , 2002, 30, 2131-2143.	14.5	10
126	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

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127	Multithfrmal dna micro-array chip for rapid dna melting temperature measurement and advanced snp discrimination. , 0, , .		0
128	A Biomicrofluidic Screening Platform for Dysfunctional Endotheliumâ€Targeted Nanoparticles and Therapeutics. Advanced NanoBiomed Research, 0, , 210092.	3.6	1
129	Optimization of Oligonucleotide DNA Microarrays. , 0, , 93-104.		0