

Takatoki Yamamoto

List of Publications by Year in descending order

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78
papers

1,534
citations

361045

20
h-index

315357

38
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79
all docs

79
docs citations

79
times ranked

2071
citing authors

#	ARTICLE	IF	CITATIONS
1	An integrated microfluidic system for long-term perfusion culture and on-line monitoring of intestinal tissue models. <i>Lab on A Chip</i> , 2008, 8, 741.	3.1	257
2	Integration of gene amplification and capillary gel electrophoresis on a polydimethylsiloxane-glass hybrid microchip. <i>Electrophoresis</i> , 2001, 22, 328-333.	1.3	166
3	PDMS-glass hybrid microreactor array with embedded temperature control device. Application to cell-free protein synthesis. <i>Lab on A Chip</i> , 2002, 2, 197-202.	3.1	114
4	Microfabricated flow-through device for DNA amplification towards in situ gene analysis. <i>Chemical Engineering Journal</i> , 2004, 101, 151-156.	6.6	112
5	Electroactive Microwell Arrays for Highly Efficient Single Cell Trapping and Analysis. <i>Small</i> , 2011, 7, 3239-3247.	5.2	90
6	Molecular surgery of DNA based on electrostatic micromanipulation. <i>IEEE Transactions on Industry Applications</i> , 2000, 36, 1010-1017.	3.3	86
7	Quantification of Virus Particles Using Nanopore-Based Resistive-Pulse Sensing Techniques. <i>Frontiers in Microbiology</i> , 2016, 7, 1500.	1.5	77
8	Stable immobilization of rat hepatocytes as hemispheroids onto collagen-conjugated polydimethylsiloxane (PDMS) surfaces: Importance of direct oxygenation through PDMS for both formation and function. <i>Biotechnology and Bioengineering</i> , 2008, 99, 1472-1481.	1.7	60
9	Enhanced maintenance and functions of rat hepatocytes induced by combination of on-site oxygenation and coculture with fibroblasts. <i>Journal of Biotechnology</i> , 2008, 133, 253-260.	1.9	58
10	Development of Microfluidic Device for Electrical/Physical Characterization of Single Cell. <i>Journal of Microelectromechanical Systems</i> , 2006, 15, 287-295.	1.7	46
11	A microfluidic in situ analyzer for ATP quantification in ocean environments. <i>Lab on A Chip</i> , 2011, 11, 3508.	3.1	36
12	Direct measurement of electric double layer in a nanochannel by electrical impedance spectroscopy. <i>Microfluidics and Nanofluidics</i> , 2013, 14, 983-988.	1.0	27
13	Study on 172-nm vacuum ultraviolet light surface modifications of polydimethylsiloxane for micro/nanofluidic applications. <i>Surface and Interface Analysis</i> , 2011, 43, 1271-1276.	0.8	24
14	Rapid fabrication technique of nano/microfluidic device with high mechanical stability utilizing two-step soft lithography. <i>Sensors and Actuators B: Chemical</i> , 2014, 201, 407-412.	4.0	24
15	On-Chip Single Embryo Coculture With Microporous-Membrane-Supported Endometrial Cells. <i>IEEE Transactions on Nanobioscience</i> , 2009, 8, 318-324.	2.2	23
16	Nanofluidic single-molecule sorting of DNA: a new concept in separation and analysis of biomolecules towards ultimate level performance. <i>Nanotechnology</i> , 2010, 21, 395502.	1.3	23
17	An electroactive microwell array for trapping and lysing single-bacterial cells. <i>Biomicrofluidics</i> , 2011, 5, 24114.	1.2	23
18	Damage-less Handling of Exosomes Using an Ion-depletion Zone in a Microchannel. <i>Analytical Sciences</i> , 2018, 34, 875-880.	0.8	23

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19	Active immobilization of biomolecules on a hybrid three-dimensional nanoelectrode by dielectrophoresis for single-biomolecule study. <i>Nanotechnology</i> , 2007, 18, 495503.	1.3	22
20	Nanometer-level high-accuracy molding using a photo-curable silicone elastomer by suppressing thermal shrinkage. <i>RSC Advances</i> , 2015, 5, 10172-10177.	1.7	20
21	Integrated in situ genetic analyzer for microbiology in extreme environments. <i>RSC Advances</i> , 2011, 1, 1567.	1.7	18
22	Modification of the Glass Surface Property in PDMS-Glass Hybrid Microfluidic Devices. <i>Analytical Sciences</i> , 2012, 28, 39-44.	0.8	18
23	Evaluation of Cell-free Protein Synthesis Using PDMS-based Microreactor Arrays. <i>Analytical Sciences</i> , 2008, 24, 243-246.	0.8	12
24	Chemical delivery microsystem for single-molecule analysis using multilaminar continuous flow. <i>Enzyme and Microbial Technology</i> , 2006, 39, 519-525.	1.6	11
25	Solid-state bonding of silicone elastomer to glass by vacuum oxygen plasma, atmospheric plasma, and vacuum ultraviolet light treatment. <i>Surface and Interface Analysis</i> , 2013, 45, 817-822.	0.8	11
26	Solid state direct bonding of polymers by vacuum ultraviolet light below 160 nm. <i>Applied Surface Science</i> , 2017, 419, 319-327.	3.1	11
27	Polymerase chain reaction-based biochemical logic gate coupled with cell-free transcription-translation of green fluorescent protein as a report gate. <i>Chemical Communications</i> , 2008, , 3771.	2.2	10
28	Fabrication of Gold Nanodot Array on Plastic Films for Bio-sensing Applications. <i>Procedia CIRP</i> , 2013, 5, 47-52.	1.0	10
29	Fabrication of an Anti-Reflective and Super-Hydrophobic Structure by Vacuum Ultraviolet Light-Assisted Bonding and Nanoscale Pattern Transfer. <i>Micromachines</i> , 2018, 9, 186.	1.4	10
30	Nonlinear electrical impedance spectroscopy of viruses using very high electric fields created by nanogap electrodes. <i>Frontiers in Microbiology</i> , 2015, 6, 940.	1.5	9
31	Vacuum ultraviolet light assisted bonding and nanoscale pattern transfer method for polydimethylsiloxane. <i>Microelectronic Engineering</i> , 2017, 176, 116-120.	1.1	9
32	Nanoscale three-dimensional optical visualization method for a deformation of elastomer printing plate to realize soft nano-printing technology. <i>Surface and Interface Analysis</i> , 2015, 47, 723-727.	0.8	8
33	Effects of Morphology of Nanodots on Localized Surface Plasmon Resonance Property. <i>International Journal of Automation Technology</i> , 2014, 8, 74-82.	0.5	7
34	Pneumatic handling of droplets on-demand on a microfluidic device for seamless processing of reaction and electrophoretic separation. <i>Electrophoresis</i> , 2010, 31, 3719-3726.	1.3	6
35	Nanoscale Etching and Flattening of Metals with Ozone Water. <i>Nano Letters</i> , 2012, 12, 3158-3161.	4.5	6
36	A Novel Fabrication Technique for Liquid-Tight Microchannels by Combination of a Paraffin Polymer and a Photo-Curable Silicone Elastomer. <i>Materials</i> , 2016, 9, 621.	1.3	6

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37	Subsurface investigation of the surface modification of polydimethylsiloxane by 172-nm vacuum ultraviolet irradiation using ToF-SIMS and VUV spectrometry. <i>Surface and Interface Analysis</i> , 2018, 50, 752-756.	0.8	5
38	Single-Molecule Detection of DNA in a Nanochannel by High-Field Strength-Assisted Electrical Impedance Spectroscopy. <i>Micromachines</i> , 2019, 10, 189.	1.4	5
39	Design Optimization and Evaluation of a Bioluminescence Detection Part on a Microfluidic Device for in situ ATP Quantification. <i>IEEJ Transactions on Sensors and Micromachines</i> , 2009, 129, 73-76.	0.0	5
40	Direct Bonding between Silicone and Glass by Atmospheric-Pressure Surface Modification. <i>IEEJ Transactions on Sensors and Micromachines</i> , 2011, 131, 159-164.	0.0	4
41	Microfluidic Device with Integrated Glucose Sensor for Cell-Based Assay in Toxicology. <i>Journal of Robotics and Mechatronics</i> , 2010, 22, 594-600.	0.5	4
42	Development of Virus Concentration Device by Controlling Ion Depletion Zone for Ultrasensitive Virus Sensing. <i>Electronics and Communications in Japan</i> , 2017, 100, 56-63.	0.3	3
43	Optical Etching to Pattern Microstructures on Plastics by Vacuum Ultraviolet Light. <i>Materials</i> , 2020, 13, 2206.	1.3	3
44	One-Dimensional Flow of Bacteria on an Electrode Rail by Dielectrophoresis: Toward Single-Cell-Based Analysis. <i>Micromachines</i> , 2021, 12, 123.	1.4	3
45	Microfluidic Perfusion Culture of Human Hepatocytes. <i>Journal of Robotics and Mechatronics</i> , 2007, 19, 550-556.	0.5	3
46	<title>Molecular surgery of DNA</title>. , 1998, 3202, 228.		2
47	A Rapid Method for Optimizing Running Temperature of Electrophoresis through Repetitive On-Chip CE Operations. <i>International Journal of Molecular Sciences</i> , 2011, 12, 4271-4281.	1.8	2
48	Application of cell-free expression of GFP for evaluation of microsystems. <i>Frontiers in Bioscience - Landmark</i> , 2012, 17, 1931.	3.0	2
49	Direct Evaluation of the Electrokinetic Properties of Electrolytes in a Nanochannel using Electrical Impedance Spectroscopy. <i>Israel Journal of Chemistry</i> , 2014, 54, 1607-1614.	1.0	2
50	Conformation dependent non-linear impedance response of DNA in nanofluidic device. , 2015, , .		2
51	Editorial: Perspectives for the Next Generation of Virus Research: Spearheading the Use of Innovative Technologies and Methodologies. <i>Frontiers in Microbiology</i> , 2017, 8, 758.	1.5	2
52	Study of Automated Embryo Manipulation Using Dynamic Microarray: Trapping, Culture and Collection. <i>IEEJ Transactions on Sensors and Micromachines</i> , 2009, 129, 245-251.	0.0	2
53	Chemical Lift-Off Process Using Acetone Ink for Easy Fabrication of Metallic Nano/Microstructures. <i>International Journal of Automation Technology</i> , 2020, 14, 229-237.	0.5	2
54	Development of Micro Perfusion Cell Culture Device to Create In Vivo-Like Environments for Long-Period and Real-Time Monitoring of Cells Activities. , 2006, , .		1

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55	Evaporative pumping of liquid in nanochannel for electrical measurement of a single biomolecule in nanofluidic format. , 2007, , .		1
56	Development of On-chip Coculture System for Cytotoxicity Test Using Caco-2 and Hep G2. IEEJ Transactions on Sensors and Micromachines, 2009, 129, 252-258.	0.0	1
57	Single-molecule Measurement and Its Application by Electric Impedance Spectroscopy Using Nanochannel. Bunseki Kagaku, 2015, 64, 431-440.	0.1	1
58	Measurement of low-grade inflammation of the esophageal mucosa with electrical conductivity shows promise in assessing PPI responsiveness in patients with GERD. American Journal of Physiology - Renal Physiology, 2021, 321, G29-G40.	1.6	1
59	On-chip Glucose Sensor for Online Measurement of Cell Activities. IEEJ Transactions on Sensors and Micromachines, 2010, 130, 476-483.	0.0	1
60	Measurements of Nonlinear Electrical Impedances by Virtue of Induced Conformational Changes in DNAs. Journal of Robotics and Mechatronics, 2010, 22, 601-607.	0.5	1
61	Control of Oscillation Patterns in a Symmetric Coupled Biological Oscillator System. AIP Conference Proceedings, 2003, , .	0.3	0
62	Controlling the expression ratio of two proteins by inserting a terminator between the two genes. Nucleic Acids Symposium Series, 2006, 50, 329-330.	0.3	0
63	Development of "IISA-ATP" system for in situ microbial activity assessment in deep-sea environment. , 2008, , .		0
64	Biomolecular Nano-Flow-Sensor to Measure Near-Surface Flow. Nanoscale Research Letters, 2010, 5, 296-301.	3.1	0
65	Single molecular level analysis and processing in nanochannels. Frontiers in Bioscience - Scholar, 2012, S4, 1461-1474.	0.8	0
66	Optical property of metallic nanodot arrays fabricated by combination of nano plastic forming and thermal dewetting method. Transactions of the JSME (in Japanese), 2014, 80, MN0272-MN0272.	0.1	0
67	Nano-pattern molding technique using photocurable silicone elastomer. , 2015, , .		0
68	Three-dimensional visualizing method at nanoscale resolution for printing behavior. , 2015, , .		0
69	Fabrication method of moth-eye using UV-curable polydimethylsiloxane with vitrification by vacuum ultraviolet light. , 2015, , .		0
70	Study of Metal Etching Using Ozone Water. Electrical Engineering in Japan (English Translation of) Tj ETQq0 0 0 rgBT, /Overlock 10 Tf 00	0.2	0
71	Development of Hybrid Microreactor for Protein Synthesis. IEEJ Transactions on Sensors and Micromachines, 2001, 121, 163-168.	0.0	0
72	Development of a Platform for Single-molecular Dynamics Study-Manipulations and Analysis using Microfluidic Devices and Nano-electrodes-. Hyomen Kagaku, 2006, 27, 102-107.	0.0	0

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73	Development and Analysis of Multi-Laminar Chemical Delivery Platform Toward Single Molecular Application. , 2006, , .		0
74	Study of Metal Etching using Ozone Water. IEEJ Transactions on Sensors and Micromachines, 2012, 132, 413-419.	0.0	0
75	Development of Virus Concentration Device by Controlling Ion Depletion Zone for Ultra-sensitive Virus Sensing. IEEJ Transactions on Sensors and Micromachines, 2016, 136, 363-369.	0.0	0
76	Fabrication Method for Moth-eye Structure Made of Glass Using Vacuum Ultraviolet Light Vitrification of Silicone. IEEJ Transactions on Sensors and Micromachines, 2016, 136, 488-492.	0.0	0
77	Initial Evaluation of the Continuous Sampling Method using Liquid-gate Realized by Porous Membrane and Hydrophilic/Hydrophobic Interface. IEEJ Transactions on Sensors and Micromachines, 2017, 137, 169-173.	0.0	0
78	SERS effect of rhombic Au film structure fabricated by NPF method. Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21, 2021, 2021.10, 080-072.	0.0	0