

Hiroaki Suzuki

List of Publications by Year in descending order

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Version: 2024-02-01

138
papers

3,491
citations

159585

30
h-index

149698

56
g-index

143
all docs

143
docs citations

143
times ranked

3228
citing authors

#	ARTICLE	IF	CITATIONS
1	Liposome-Mediated Material Transfer in Single Cells. , 2022, , 435-448.		0
2	Controlled formation of topological defects of liquid crystals in micro-wells. Liquid Crystals, 2022, 49, 580-588.	2.2	3
3	Plug-and-play microfluidic production of monodisperse giant unilamellar vesicles using droplet transfer across Water–Oil interface. Sensors and Actuators B: Chemical, 2022, 355, 131281.	7.8	6
4	Detection of nanoparticles in a minute sample using the vibration induced flow. , 2022, , .		0
5	Efficient Production of Monodisperse Giant Unilamellar Vesicles by Transferring Across the W-O Interface. , 2021, , .		0
6	Sarcomere Shortening of Pluripotent Stem Cell-Derived Cardiomyocytes using Fluorescent-Tagged Sarcomere Proteins.. Journal of Visualized Experiments, 2021, , .	0.3	0
7	Single-cell RNA-seq analysis reveals penaeid shrimp hemocyte subpopulations and cell differentiation process. ELife, 2021, 10, .	6.0	53
8	Microfluidic Cell Separation and Genetic Analysis of Kuruma Shrimp. , 2021, , .		0
9	Usefulness of cell-penetrating peptides and penetration accelerating sequence for nose-to-brain delivery of glucagon-like peptide-2. Journal of Controlled Release, 2021, 335, 575-583.	9.9	21
10	Sizing of giant unilamellar vesicles using a metal mesh with a high opening ratio. Chemistry and Physics of Lipids, 2021, 241, 105148.	3.2	2
11	Applying deterministic lateral displacement cell separation on immune cells of Marine shrimp. Sensors and Actuators B: Chemical, 2021, 347, 130587.	7.8	3
12	A simple microfluidic device for live-imaging of the vertical section of epithelial cells. Analyst, The, 2020, 145, 667-674.	3.5	9
13	A Microchamber Device for Evaluation of the Barrier Functions of Epithelial Cells. , 2020, , .		0
14	Elucidating the Membrane Dynamics and Encapsulation Mechanism of Large DNA Molecules Under Molecular Crowding Conditions Using Giant Unilamellar Vesicles. ACS Synthetic Biology, 2020, 9, 2819-2827.	3.8	5
15	Deformation Dynamics of Giant Unilamellar Vesicles in the Large Surface-to-Volume Ratio Regime: The Emergence of Neuron-like Morphology. Langmuir, 2020, 36, 6238-6244.	3.5	6
16	Selective self-assembly of three-component system based on hydrophilic/hydrophobic patterning. Sensors and Actuators A: Physical, 2020, 312, 112143.	4.1	3
17	Polymer-Induced Self-Assembly of a Three-Dimensional Mesoscale Structure. Journal of Microelectromechanical Systems, 2019, 28, 678-684.	2.5	3
18	Assembly of Microparticles to Patterned Trenches Using the Depletion Volume Effect. Micromachines, 2019, 10, 428.	2.9	2

#	ARTICLE	IF	CITATIONS
19	A Pumpless Mixer for Efficient Capturing of Small Particles Utilizing Vibration-Induced Flow. , 2019, , .		0
20	Ejection of Large Particulate Materials from Giant Unilamellar Vesicles Induced by Electropulsation. Langmuir, 2019, 35, 13196-13204.	3.5	6
21	Liposome-Mediated Material Transfer in Single Cells. , 2019, , 1-14.		0
22	Templated Self-Assembly of Microcomponents Using Water-Oil Interface. , 2019, , .		0
23	DESIGN AND EVALUATION OF MICROMIXIER WITH LOW DEAD VOLUME BASED ON VIBRATION-INDUCED FLOW. , 2019, , .		0
24	Deformation Modes of Giant Unilamellar Vesicles Encapsulating Biopolymers. ACS Synthetic Biology, 2018, 7, 739-747.	3.8	27
25	Reagent Handling and Delivery System Using Cell-Sized Liposomes. , 2018, , .		0
26	Numerical and Experimental Analyses of Three- Dimensional Unsteady Flow around a Micro-Pillar Subjected to Rotational Vibration. Micromachines, 2018, 9, 668.	2.9	7
27	Reverse Transcription Polymerase Chain Reaction in Giant Unilamellar Vesicles. Scientific Reports, 2018, 8, 9214.	3.3	30
28	A fluidics-based impact sensor. PLoS ONE, 2018, 13, e0195741.	2.5	0
29	Selective bonding method for self-assembly of heterogeneous components using patterned surfaces. Sensors and Actuators A: Physical, 2018, 279, 306-312.	4.1	2
30	One-step micromolding of complex 3D microchambers for single-cell analysis. Lab on A Chip, 2017, 17, 647-652.	6.0	9
31	Self-assembly of artificially manufactured microcomponents using the entropic effect. Sensors and Actuators A: Physical, 2017, 254, 43-53.	4.1	11
32	Fracture characterization of inhomogeneous wrinkled metallic films deposited on soft substrates. Journal Physics D: Applied Physics, 2017, 50, 495301.	2.8	1
33	Self-assembly of multi-component microstructure using the entropic effect. , 2016, , .		0
34	Experimental study of the knockout reaction mechanism using O^{14} at 60 MeV/nucleon. Physical Review C, 2016, 93, .	2.9	8
35	Microchamber Device for Detection of Transporter Activity of Adherent Cells. Frontiers in Bioengineering and Biotechnology, 2015, 3, 32.	4.1	4
36	Shape Transformations of Lipid Vesicles by Insertion of Bulky-Head Lipids. PLoS ONE, 2015, 10, e0132963.	2.5	12

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37	Self-assembly of microcomponents using the entropic effect. , 2015, , .		0
38	A microwell device for measurement of membrane transport of adherent cells. , 2015, , .		1
39	Stochasticity in Gene Expression in a Cell-Sized Compartment. ACS Synthetic Biology, 2015, 4, 566-576.	3.8	53
40	Liposome-Based Liquid Handling Platform Featuring Addition, Mixing, and Aliquoting of Femtoliter Volumes. PLoS ONE, 2014, 9, e101820.	2.5	26
41	Cell-free Protein Synthesis in a Microchamber Revealed the Presence of an Optimum Compartment Volume for High-order Reactions. ACS Synthetic Biology, 2014, 3, 347-352.	3.8	20
42	Extrinsic spin Hall effects measured with lateral spin valve structures. Physical Review B, 2014, 89, .	3.2	96
43	Identification of giant unilamellar vesicles with permeability to small charged molecules. RSC Advances, 2014, 4, 35224.	3.6	23
44	Statistical analysis of vesicle morphology dynamics based on a free energy landscape. Soft Matter, 2014, 10, 6038-6046.	2.7	4
45	1C33 Volume Dependence of Cell-free Protein Synthesis Using a Glass Microchamber. The Proceedings of the Bioengineering Conference Annual Meeting of BED/JSME, 2014, 2014.26, 91-92.	0.0	0
46	Bio-inspired three-dimensional self-patterning of functional coatings for PDMS microfluidics. Soft Matter, 2013, 9, 3473.	2.7	13
47	Modification of an Amplification Reaction in Recursively Dynamic Compartments Driven by Stirring. Analytical Chemistry, 2013, 85, 12002-12010.	6.5	3
48	Origin of Cell Scenarios Supported by Dynamics of Lipid Membranes. Seibutsu Butsuri, 2013, 53, 134-139.	0.1	0
49	Shrunk to femtolitre: Tuning high-throughput monodisperse water-in-oil droplet arrays for ultra-small micro-reactors. Applied Physics Letters, 2012, 101, 074108.	3.3	19
50	Coupling of the fusion and budding of giant phospholipid vesicles containing macromolecules. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 5942-5947.	7.1	148
51	Effects of Compartment Size on the Kinetics of Intracompartamental Multimeric Protein Synthesis. ACS Synthetic Biology, 2012, 1, 431-437.	3.8	27
52	Fractal-shaped microchannel design for a kinetic analysis of biochemical reaction in a delay line. Microfluidics and Nanofluidics, 2012, 13, 273-278.	2.2	7
53	Statistical analysis of discrete encapsulation of nanomaterials in colloidal capsules. Analytical Methods, 2012, 4, 1648.	2.7	15
54	Cell-free protein synthesis from a single copy of DNA in a glass microchamber. Lab on A Chip, 2012, 12, 2704.	6.0	29

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55	Hydrodynamic trapping of <i>Tetrahymena thermophila</i> for the long-term monitoring of cell behaviors. <i>Lab on A Chip</i> , 2012, 12, 3451.	6.0	30
56	Constructive Approaches for the Origin of Life. <i>Cellular Origin and Life in Extreme Habitats</i> , 2012, , 289-303.	0.3	1
57	Cell-Free Protein Synthesis inside Giant Unilamellar Vesicles Analyzed by Flow Cytometry. <i>Langmuir</i> , 2012, 28, 8426-8432.	3.5	124
58	Importance of Parasite RNA Species Repression for Prolonged Translation-Coupled RNA Self-Replication. <i>Chemistry and Biology</i> , 2012, 19, 478-487.	6.0	48
59	Size control of giant unilamellar vesicles prepared from inverted emulsion droplets. <i>Journal of Colloid and Interface Science</i> , 2012, 376, 119-125.	9.4	78
60	Coarse View of Life from Physics. <i>Seibutsu Butsuri</i> , 2012, 52, 098-099.	0.1	0
61	Programmed Vesicle Fusion Triggers Gene Expression. <i>Langmuir</i> , 2011, 27, 13082-13090.	3.5	62
62	Microfluidic lipid membrane formation on microchamber arrays. <i>Lab on A Chip</i> , 2011, 11, 2485.	6.0	46
63	Proton-rich nuclear structure and mirror asymmetry investigated by β^2 -decay spectroscopy of ^{24}Si . <i>Journal of Physics: Conference Series</i> , 2011, 312, 092031.	0.4	6
64	Micro-droplet model for recursive growth and division dynamics of the cell. <i>Europhysics Letters</i> , 2011, 96, 48006.	2.0	5
65	Bio-inspired 3D self-patterning of functional coatings for PDMS microfluidics. , 2011, , .		1
66	Origin of lognormal-like distributions with a common width in a growth and division process. <i>Physical Review E</i> , 2011, 83, 031118.	2.1	33
67	In-situ generation and shrinkage of monodisperse water-in-oil emulsion for femtoliter compartmentalization using capillary traps. , 2011, , .		0
68	Evolvability and Self-Replication of Genetic Information in Liposomes. , 2011, , 275-287.		2
69	1P342 1J1520 Diffusion Modeling of Controlled Shrinkage for Femtoliter Water-in-oil Emulsion(Bioengineering,Oral Presentations,The 48th Annual Meeting of the Biophysical Society of) Tj ETQq1 1 0.784314 rgBT /Overlo		
70	1P070 Co-translational folding of beta-galactosidase and beta-glucuronidase in an in vitro translation system(Protein:Property,The 48th Annual Meeting of the Biophysical Society of Japan). <i>Seibutsu Butsuri</i> , 2010, 50, S31.	0.1	0
71	2P250 Detection of association and fusion of giant vesicles using fluorescence-activated cell sorter(The 48th Annual Meeting of the Biophysical Society of Japan). <i>Seibutsu Butsuri</i> , 2010, 50, Search for $\langle \mathbb{H} \rangle$	0.1	0
72	$\langle \mathbb{H} \rangle$	2.9	23

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73	Constructing Partial Models of Cells. Cold Spring Harbor Perspectives in Biology, 2010, 2, a004945-a004945.	5.5	40
74	Search for [⁷ H] at RIKEN. , 2010, , .		1
75	Gamow-Teller transition of the proton-rich nucleus [²⁴ Si]. , 2010, , .		0
76	Mirror asymmetry for B(GT) of [²⁴ Si] induced by Thomas-Ehrman shift. , 2010, , .		0
77	Synthesis of Functional Proteins Within Liposomes. Methods in Molecular Biology, 2010, 607, 243-256.	0.9	30
78	Cellular Compartment Model for Exploring the Effect of the Lipidic Membrane on the Kinetics of Encapsulated Biochemical Reactions. Langmuir, 2010, 26, 8544-8551.	3.5	60
79	Detection of Association and Fusion of Giant Vesicles Using a Fluorescence-Activated Cell Sorter. Langmuir, 2010, 26, 15098-15103.	3.5	54
80	γ decay of the proton-rich nucleus ^{24}Si	2.9	16
81	and its mirror β decay of the proton-rich nucleus ^{24}Si and its mirror β decay of the proton-rich nucleus ^{24}Si		0
82	Detection and Analysis of Protein Synthesis and RNA Replication in Giant Liposomes. Methods in Enzymology, 2009, 464, 19-30.	1.0	11
83	Multichannel Simultaneous Measurements of Single-Molecule Translocation in α -Hemolysin Nanopore Array. Analytical Chemistry, 2009, 81, 9866-9870.	6.5	103
84	Ninety-six-well planar lipid bilayer chip for ion channel recording Fabricated by hybrid stereolithography. Biomedical Microdevices, 2009, 11, 17-22.	2.8	40
85	Beta-decay study of $T_z = -2$ proton-rich nucleus ^{24}Si . European Physical Journal A, 2009, 42, 375.	2.5	4
86	Computationally and Experimentally Derived General Rules for Fragmentation of Various Glycosyl Bonds in Sodium Adduct Oligosaccharides. Analytical Chemistry, 2009, 81, 1108-1120.	6.5	29
87	Population Analysis of Structural Properties of Giant Liposomes by Flow Cytometry. Langmuir, 2009, 25, 10439-10443.	3.5	89
88	Electro-Optical Imaging Microscopy of Dye-Doped Artificial Lipidic Membranes. Biophysical Journal, 2009, 97, 2913-2921.	0.5	13
89	Investigation into behavior of weakly-bound proton via B(GT) measurement for the γ decay of [²⁴ Si]. , 2009, , .		0
90	1P-183 Size control of uniamellar giantvesicle using microfluidics(Biol & Artifi memb.:Structure & Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50		0

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91	Electro-Optical Imaging Microscopy of Dye Doped Lipid Bilayer. , 2009, , .		0
92	Reconstruction and Functional Measurement of Artificial Lipid Membranes using Micro-Technologies. Seibutsu Butsuri, 2009, 49, 086-087.	0.1	0
93	Microtechnologies for membrane protein studies. Analytical and Bioanalytical Chemistry, 2008, 391, 2695-2702.	3.7	46
94	N-terminal labeling of proteins by the Pictetâ€“Spengler reaction. Bioorganic and Medicinal Chemistry Letters, 2008, 18, 4550-4553.	2.2	43
95	Fragmentation of Lewis-type trisaccharides in the gas phase: Experimental and theoretical studies. International Journal of Mass Spectrometry, 2008, 278, 1-9.	1.5	6
96	Microfluidic formation of lipid bilayer array for membrane transport analysis. Proceedings of the IEEE International Conference on Micro Electro Mechanical Systems (MEMS), 2008, , .	0.0	3
97	Lipid Bilayer Microarray for Parallel Recording of Transmembrane Ion Currents. Analytical Chemistry, 2008, 80, 328-332.	6.5	101
98	Quantitative Study of the Structure of Multilamellar Giant Liposomes As a Container of Protein Synthesis Reaction. Langmuir, 2008, 24, 13540-13548.	3.5	90
99	3P-275 Quantitative analysis of interactions between the phospholipid membrane and encapsulated reaction systems in cell-sized liposomes(The 46th Annual Meeting of the Biophysical Society of Japan). Seibutsu Butsuri, 2008, 48, S170.	0.1	0
100	2S8-6 Dynamics of structure and internal reactions in liposomes explored by fluorescence-activated cell sorter(2S8 Giant Liposome Research Front Line,The 46th Annual Meeting of the Biophysical) Tj ETQq0 0 0 rgBTdQ Overlock10 Tf 50 3		
101	3P-277 Platform for controlling micro-emulsions as a model of growth and division cycle of the cell(The 46th Annual Meeting of the Biophysical Society of Japan). Seibutsu Butsuri, 2008, 48, S170.	0.1	0
102	A parylene lift-off process with microfluidic channels for selective protein patterning. Journal of Micromechanics and Microengineering, 2007, 17, 496-500.	2.6	25
103	Chaperone Properties of Mammalian Mitochondrial Translation Elongation Factor Tu. Journal of Biological Chemistry, 2007, 282, 4076-4084.	3.4	62
104	Supported lipid bilayer array to study clathrin mediated endocytosis in vitro. , 2007, , .		0
105	Formation of Giant Lipid Vesiclelike Compartments from a Planar Lipid Membrane by a Pulsed Jet Flow. Journal of the American Chemical Society, 2007, 129, 12608-12609.	13.7	162
106	Solid-phase fluorescence and ionization efficiency in negative-ion matrix-assisted laser desorption/ionization of neutral oligosaccharides: Interaction between Î²-carboline matrix and ammonium salt. Journal of the American Society for Mass Spectrometry, 2007, 18, 714-723.	2.8	17
107	Electrophysiological recordings of single ion channels in planar lipid bilayers using a polymethyl methacrylate microfluidic chip. Biosensors and Bioelectronics, 2007, 22, 1111-1115.	10.1	60
108	Lipid Bilayer Formation by Contacting Monolayers in a Microfluidic Device for Membrane Protein Analysis. Analytical Chemistry, 2006, 78, 8169-8174.	6.5	443

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109	Characterization of the Membrane Transport Assay System Using Microchamber Array. , 2006, , .		0
110	Ultra Giant Vesicles out of a Planar Membrane. , 2006, , .		0
111	Highly Reproducible Method of Planar Lipid Bilayer Reconstitution in Polymethyl Methacrylate Microfluidic Chip. Langmuir, 2006, 22, 1937-1942.	3.5	94
112	A comparative study of the fragmentation of neutral lactooligosaccharides in negative-ion mode by UV-MALDI-TOF and UV-MALDI ion-trap/TOF mass spectrometry. Journal of the American Society for Mass Spectrometry, 2006, 17, 67-74.	2.8	37
113	Semiquantitative analysis of isomeric oligosaccharides by negative-ion mode UV-MALDI TOF postsource decay mass spectrometry and their fragmentation mechanism study atN-acetyl hexosamine moiety. Journal of Mass Spectrometry, 2006, 41, 454-462.	1.6	28
114	Biomolecular linear motors confined to move upon micro-patterns on glass. Journal of Micromechanics and Microengineering, 2006, 16, 1550-1554.	2.6	24
115	Fragmentation of Neutral Oligosaccharides in Negative-ion MALDI Mass Spectrometry. Trends in Glycoscience and Glycotechnology, 2006, 18, 277-292.	0.1	4
116	Assignments of B-Type Fragments in Post-Source Decay of Negative-Ion Matrix-Assisted Laser Desorption/Ionization Time-of-Flight Mass Spectrometry of Neutral Lactooligosaccharides. Journal of the Mass Spectrometry Society of Japan, 2006, 54, 251-254.	0.1	2
117	Optimization of Matrix and Amount of Ammonium Chloride Additive for Effective Ionization of Neutral Oligosaccharides as Chloride Ion Adducts in Negative-Mode MALDI-TOF Mass Spectrometry. Journal of the Mass Spectrometry Society of Japan, 2005, 53, 227-229.	0.1	14
118	In-Source and Postsource Decay in Negative-Ion Matrix-Assisted Laser Desorption/Ionization Time-of-Flight Mass Spectrometry of Neutral Oligosaccharides. Analytical Chemistry, 2005, 77, 1701-1707.	6.5	51
119	Active control of an axisymmetric jet with distributed electromagnetic flap actuators. Experiments in Fluids, 2004, 36, 498-509.	2.4	82
120	Planar lipid bilayer reconstitution with a micro-fluidic system. Lab on A Chip, 2004, 4, 502.	6.0	85
121	A Chaotic Mixer for Magnetic Bead-Based Micro Cell Sorter. Journal of Microelectromechanical Systems, 2004, 13, 779-790.	2.5	129
122	Anomalous quasiparticle excitations in Y(Ni $_{1-x}$ Ptx)2B2C. Physica B: Condensed Matter, 2003, 326, 364-368.	2.7	9
123	Excess quasiparticles outside the vortex cores in Y(Ni $_{1-x}$ Ptx)2B2C. Physica C: Superconductivity and Its Applications, 2003, 388-389, 197-198.	1.2	1
124	A Chaotic Micro-Mixer Using Magnetic Beads. 880-02 Nihon Kikai Gakkai RonbunshÅ« Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 2003, 69, 2626-2632.	0.2	3
125	Nonlocal effects and shrinkage of the vortex core radius inYNi2B2Cprobed by muon spin rotation. Physical Review B, 2002, 65, .	3.2	27
126	Impurity-induced gap modification in anisotropic superconductors: mixed-state specific heat of La2 $_{x}$ Srx(Cu1 $_{y}$ Zny)O4 and Y(Ni1 $_{x}$ Ptx)2B2C. Physica C: Superconductivity and Its Applications, 2001, 357-360, 42-45.	1.2	2

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127	Quasiparticle Density of States of Clean and Dirty d-Wave Superconductors: Mixed-State Specific Heat of $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$ Single Crystals. <i>Journal of the Physical Society of Japan</i> , 2000, 69, 1602-1605.	1.6	26
128	Anomalous field dependence of the vortex-core radius and magnetic penetration depth in $\text{YNi}_2\text{B}_2\text{C}$ probed by $^{1/4}\text{SR}$. <i>Physica B: Condensed Matter</i> , 2000, 289-290, 377-380.	2.7	7
129	Specific heat study of $\text{SrCu}_2(\text{BO}_3)_2$. <i>Physica B: Condensed Matter</i> , 2000, 281-282, 667-668.	2.7	18
130	Impurity-induced gap renormalization in anisotropic superconductors: Mixed-state specific heat of $\text{La}_{2-x}\text{Sr}_x(\text{Cu}_{1-y}\text{Zn}_y)\text{O}_4$ and $\text{Y}(\text{Ni}_{1-x}\text{Pt}_x)_2\text{B}_2\text{C}$. <i>Physica C: Superconductivity and Its Applications</i> , 2000, 341-348, 2177-2180.	1.2	37
131	Low-temperature specific heat study of $\text{SrCu}_2(\text{BO}_3)_2$ with an exactly solvable ground state. <i>Journal of Experimental and Theoretical Physics</i> , 2000, 90, 129-132.	0.9	21
132	Active Control of Axisymmetric Jet with an Array of Micro Electro-Magnetic Flap Actuators.. 880-02 <i>Nihon Kikai Gakkai Ronbunshu</i> Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 1999, 65, 3644-3651.	0.2	14
133	Breakup process for 100 MeV ^3He interacting with ^{165}Ho and $^{166, 167}\text{Er}$ nuclei. <i>Nuclear Physics A</i> , 1984, 413, 290-310.	1.5	11
134	Triple focussing electron spectrum selector (TESS-II) with a pair of sector magnets. <i>Nuclear Instruments & Methods in Physics Research</i> , 1982, 204, 101-108.	0.9	2
135	Energy and angular momentum transfers in equilibrium and pre-equilibrium $^{158}\text{Gd}(\pm, xn)$ reactions. <i>Nuclear Physics A</i> , 1982, 379, 160-172.	1.5	9
136	A magnetic force driven chaotic micro-mixer. , 0, , .		25
137	Formation process of planar lipid bilayer observed by confocal microscopy. , 0, , .		0
138	Biomolecular linear motors confined to move upon micropatterns on glass. , 0, , .		2