Yaling Liu

List of Publications by Year in descending order

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		94433	114465
123	4,307	37	63
papers	citations	h-index	g-index

129	129	129	5953
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Machine Learning-Driven Multiobjective Optimization: An Opportunity of Microfluidic Platforms Applied in Cancer Research. Cells, 2022, 11, 905.	4.1	9
2	Applications and Techniques for Fast Machine Learning in Science. Frontiers in Big Data, 2022, 5, 787421.	2.9	20
3	A numerical study on drug deliveryviamultiscale synergy of cellular hitchhiking onto red blood cells. Nanoscale, 2021, 13, 17359-17372.	5.6	9
4	Small molecule therapeutics to destabilize the ACE2-RBD complex: A molecular dynamics study. Biophysical Journal, 2021, 120, 2793-2804.	0.5	17
5	Respiratory droplet resuspension near surfaces: Modeling and analysis. Journal of Applied Physics, 2021, 130, 024702.	2.5	4
6	Numerical simulation of intracellular drug delivery via rapid squeezing. Biomicrofluidics, 2021, 15, 044102.	2.4	6
7	10.1063/5.0059165.1. , 2021, , .		0
8	10.1063/5.0059165.2. , 2021, , .		0
9	Binding kinetics of liposome conjugated E-selectin and P-selectin glycoprotein ligand-1 measured with atomic force microscopy. Colloids and Surfaces B: Biointerfaces, 2021, 207, 112002.	5.0	5
10	From cell spheroids to vascularized cancer organoids: Microfluidic tumor-on-a-chip models for preclinical drug evaluations. Biomicrofluidics, 2021, 15, 061503.	2.4	13
11	Quantitative absorption imaging of red blood cells to determine physical and mechanical properties. RSC Advances, 2020, 10, 38923-38936.	3.6	7
12	Coarse-Grained Modeling of Pore Dynamics on the Red Blood Cell Membrane under Large Deformations. Biophysical Journal, 2020, 119, 471-482.	0.5	20
13	Label-free detection of rare circulating tumor cells by image analysis and machine learning. Scientific Reports, 2020, 10, 12226.	3.3	35
14	Prediction of mechanical hemolysis in medical devices via a Lagrangian strainâ€based multiscale model. Artificial Organs, 2020, 44, E348-E368.	1.9	20
15	Multiscale modeling of hemolysis during microfiltration. Microfluidics and Nanofluidics, 2020, 24, 1.	2.2	31
16	Bi-layer blood vessel mimicking microfluidic platform for antitumor drug screening based on co-culturing 3D tumor spheroids and endothelial layers. Biomicrofluidics, 2019, 13, 044108.	2.4	11
17	Integration of Hierarchical Micro-/Nanostructures in a Microfluidic Chip for Efficient and Selective Isolation of Rare Tumor Cells. Micromachines, 2019, 10, 698.	2.9	3
18	Three-dimensional printing of large objects with high resolution by scanning lithography. International Journal of Advanced Manufacturing Technology, 2019, 105, 4147-4157.	3.0	7

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19	Microfluidic device for expedited tumor growth towards drug evaluation. Lab on A Chip, 2019, 19, 1458-1470.	6.0	21
20	Longitudinal Morphological and Physiological Monitoring of Three-dimensional Tumor Spheroids Using Optical Coherence Tomography. Journal of Visualized Experiments, 2019, , .	0.3	3
21	Performance Analysis of a Functionally Graded Thermoelectric Element with Temperature-Dependent Material Properties. Journal of Electronic Materials, 2019, 48, 5542-5554.	2.2	5
22	The shape effect on polymer nanoparticle transport in a blood vessel. RSC Advances, 2018, 8, 8089-8100.	3.6	22
23	Biomimetic microfluidic platform for the quantification of transient endothelial monolayer permeability and therapeutic transport under mimicked cancerous conditions. Biomicrofluidics, 2018, 12, 014101.	2.4	12
24	Facile Tumor Spheroids Formation in Large Quantity with Controllable Size and High Uniformity. Scientific Reports, 2018, 8, 6837.	3.3	44
25	Modeling thermal inkjet and cell printing process using modified pseudopotential and thermal lattice Boltzmann methods. Physical Review E, 2018, 97, 033105.	2.1	13
26	Numerical simulation of cell squeezing through a micropore by the immersed boundary method. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2018, 232, 502-514.	2.1	21
27	Label-free sorting of soft microparticles using a bioinspired synthetic cilia array. Biomicrofluidics, 2018, 12, 042206.	2.4	6
28	Organ-on-Chip Devices Toward Applications in Drug Development and Screening. Journal of Medical Devices, Transactions of the ASME, 2018, 12, .	0.7	3
29	A Facile Way to Fabricate Transparent Superhydrophobic Surfaces. Journal of Nanoscience and Nanotechnology, 2018, 18, 5082-5087.	0.9	6
30	A Cellular Model of Shear-Induced Hemolysis. Artificial Organs, 2017, 41, E80-E91.	1.9	46
31	Fabrication of circular microfluidic channels through grayscale dual-projection lithography. Microfluidics and Nanofluidics, 2017, 21, 1.	2.2	15
32	Finite Element Analysis of the Implantation Process of Overlapping Stents. Journal of Medical Devices, Transactions of the ASME, 2017, 11, 0210101-210109.	0.7	11
33	Nanoparticle transport and delivery in a heterogeneous pulmonary vasculature. Journal of Biomechanics, 2017, 50, 240-247.	2.1	20
34	Acoustic patterning for 3D embedded electrically conductive wire in stereolithography. Journal of Micromechanics and Microengineering, 2017, 27, 045016.	2.6	57
35	Short fiber reinforced 3d printed ceramic composite with shear induced alignment. Ceramics International, 2017, 43, 11766-11772.	4.8	42
36	Characterization of vascular permeability using a biomimetic microfluidic blood vessel model. Biomicrofluidics, 2017, 11, 024102.	2.4	41

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37	Optical Coherence Tomography Detects Necrotic Regions and Volumetrically Quantifies Multicellular Tumor Spheroids. Cancer Research, 2017, 77, 6011-6020.	0.9	68
38	Magnetic particles assisted capture and release of rare circulating tumor cells using wavy-herringbone structured microfluidic devices. Lab on A Chip, 2017, 17, 3291-3299.	6.0	47
39	Acoustic Patterning for 3D Embedded Electrically Conductive Wire in Stereolithography. Journal of Micromechanics and Microengineering, 2017, 27, .	2.6	1
40	Nanoscale Biological Materials. Journal of Nanomaterials, 2016, 2016, 1-2.	2.7	0
41	Characterization of Nanoparticle Dispersion in Red Blood Cell Suspension by the Lattice Boltzmann-Immersed Boundary Method. Nanomaterials, 2016, 6, 30.	4.1	44
42	Biomimetic channel modeling local vascular dynamics of pro-inflammatory endothelial changes. Biomicrofluidics, 2016, 10, 014101.	2.4	36
43	Generation of Customizable Micro-wavy Pattern through Grayscale Direct Image Lithography. Scientific Reports, 2016, 6, 21621.	3.3	14
44	Mechanical response of cardiovascular stents under vascular dynamic bending. BioMedical Engineering OnLine, 2016, 15, 21.	2.7	33
45	Mechanical Properties of Nanoworm Assembled by DNA and Nanoparticle Conjugates. Journal of Nanoscience and Nanotechnology, 2016, 16, 5447-5456.	0.9	6
46	The Configuration of Copolymer Ligands on Nanoparticles Affects Adhesion and Uptake. Langmuir, 2016, 32, 10136-10143.	3.5	9
47	Characterization of nanoparticle binding dynamics in microcirculation using an adhesion probability function. Microvascular Research, 2016, 108, 41-47.	2.5	10
48	Antibody-coated nanoparticles are promising molecular probes for microscopic analysis of cell behavior. Nanomedicine, 2016, 11, 2383-2386.	3.3	1
49	Shear induced alignment of short nanofibers in 3D printed polymer composites. Nanotechnology, 2016, 27, 495302.	2.6	57
50	Geometry design of herringbone structures for cancer cell capture in a microfluidic device. Microfluidics and Nanofluidics, 2016, 20, 1.	2.2	14
51	Multiscale Modeling in the Clinic: Drug Design and Development. Annals of Biomedical Engineering, 2016, 44, 2591-2610.	2.5	50
52	Highly efficient and selective isolation of rare tumor cells using a microfluidic chip with wavy-herringbone micro-patterned surfaces. Analyst, The, 2016, 141, 2228-2237.	3.5	47
53	Non-affinity factors modulating vascular targeting of nano- and microcarriers. Advanced Drug Delivery Reviews, 2016, 99, 97-112.	13.7	65
54	Testing, Measurement, and Characterization of Nanomaterials. Journal of Nanomaterials, 2015, 2015, 1-1.	2.7	0

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55	Cyclic Strain Enhances Cellular Uptake of Nanoparticles. Journal of Nanomaterials, 2015, 2015, 1-8.	2.7	12
56	Nanostructured Architectures by Assembling Polysaccharideâ€Coated BSA Nanoparticles for Biomedical Application. Advanced Healthcare Materials, 2015, 4, 927-937.	7.6	30
57	Computer simulation of biomoleculeâ€“biomaterial interactions at surfaces and interfaces. Biomedical Materials (Bristol), 2015, 10, 032001.	3.3	40
58	Modeling Nanoparticle Targeting to a Vascular Surface in Shear Flow Through Diffusive Particle Dynamics. Nanoscale Research Letters, 2015, 10, 942.	5.7	19
59	Numerical Simulation of Particle Transport and Deposition in the Pulmonary Vasculature. Journal of Biomechanical Engineering, 2014, 136, 121010.	1.3	37
60	The Effectof Film Microtexture and Magnetic Field on Transparency of Fe3O4-PDMS Nanocomposite Films. IEEE Photonics Technology Letters, 2014, 26, 2181-2184.	2.5	7
61	Interfacial thermal conductance and thermal accommodation coefficient of evaporating thin liquid films: A molecular dynamics study. Computational Materials Science, 2014, 87, 260-266.	3.0	10
62	Computational modeling of magnetic nanoparticle targeting to stent surface under high gradient field. Computational Mechanics, 2014, 53, 403-412.	4.0	45
63	Dopamine detection using a patch-clamp system on a planar microeletrode array electrodeposited by polypyrrole/graphene nanocomposites. Science China Technological Sciences, 2014, 57, 288-292.	4.0	5
64	Effects of nanopillar array diameter and spacing on cancer cell capture and cell behaviors. Nanoscale, 2014, 6, 12482-12489.	5.6	76
65	Biomarker Binding on an Antibody-Functionalized Biosensor Surface: The Influence of Surface Properties, Electric Field, and Coating Density. Journal of Physical Chemistry C, 2014, 118, 14586-14594.	3.1	14
66	Characterization of nanoparticle delivery in microcirculation using a microfluidic device. Microvascular Research, 2014, 94, 17-27.	2.5	34
67	A high sensitivity MEA probe for measuring real time rat brain glucose flux. Biosensors and Bioelectronics, 2014, 55, 66-71.	10.1	15
68	A novel method to directionally stabilize enzymes together with redox mediators by electrodeposition. Biosensors and Bioelectronics, 2014, 51, 244-248.	10.1	10
69	Enhanced Cell Adhesion and Alignment on Micro-Wavy Patterned Surfaces. PLoS ONE, 2014, 9, e104502.	2.5	58
70	A rapid and highly sensitive portable chemiluminescent immunosensor of carcinoembryonic antigen based on immunomagnetic separation in human serum. Analytica Chimica Acta, 2013, 766, 94-99.	5.4	36
71	The influence of size, shape and vessel geometry on nanoparticle distribution. Microfluidics and Nanofluidics, 2013, 14, 77-87.	2.2	166
72	Coupled particulate and continuum model for nanoparticle targeted delivery. Computers and Structures, 2013, 122, 128-134.	4.4	32

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73	Ultrasound Mediated Enhancement of Nanoparticle Uptake in PC-3 Cancer Cells. , 2013, , .		0
74	Cell Adhesion on a Wavy Surface. , 2013, , .		0
75	Biosensors of ZnO nanotetrapods and HEMT for detecting uric acid. , 2012, , .		2
76	Characterization of nanoparticle distribution in microcirculation: The influence of blood cells and vascular geometry. , 2012, , .		0
77	Micro-patterned surface for efficient capturing of circulating tumor cells. , 2012, , .		0
78	The shape of things to come: importance of design in nanotechnology for drug delivery. Therapeutic Delivery, 2012, 3, 181-194.	2.2	209
79	Electrokinetic effects on detection time of nanowire biosensor. Applied Physics Letters, 2012, 100, 153502.	3.3	10
80	Assemble single stranded DNA and gold nanoparticle complexes onto the surface of RBC. , 2012, , .		0
81	Influence of red blood cells on nanoparticle targeted delivery in microcirculation. Soft Matter, 2012, 8, 1934-1946.	2.7	165
82	A multiphase model for Nanoparticle delivery in microcirculation. , 2012, , .		0
83	Capture, isolation and release of cancer cells with aptamer-functionalized glass bead array. Lab on A Chip, 2012, 12, 4693.	6.0	108
84	An ascorbic acid amperometric sensor using over-oxidized polypyrrole and palladium nanoparticles composites. Biosensors and Bioelectronics, 2012, 38, 100-106.	10.1	49
85	Biodegradable nanoparticles mimicking platelet binding as a targeted and controlled drug delivery system. International Journal of Pharmaceutics, 2012, 423, 516-524.	5.2	81
86	Ultrasensitive platinum nanocubes enhanced amperometric glucose biosensor based on chitosan and nafion film. Sensors and Actuators B: Chemical, 2012, 163, 115-120.	7.8	60
87	Computational Modeling of Nanoparticle Targeted Drug Delivery. Reviews in Nanoscience and Nanotechnology, 2012, 1, 66-83.	0.4	87
88	Biospecies Capture and Detection at Low Concentration. Micro and Nanosystems, 2012, 4, 254-272.	0.6	6
89	Shape-specific polymeric nanomedicine: emerging opportunities and challenges. Experimental Biology and Medicine, 2011, 236, 20-29.	2.4	130
90	Velocity Effect on Aptamer-Based Circulating Tumor Cell Isolation in Microfluidic Devices. Journal of Physical Chemistry B, 2011, 115, 13891-13896.	2.6	82

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91	Coarse-Grained Molecular Dynamics Simulation of DNA Translocation in Chemically Modified Nanopores. Journal of Physical Chemistry B, 2011, 115, 6138-6148.	2.6	22
92	Ultrasensitive protein detection using lithographically defined Si multi-nanowire field effect transistors. Lab on A Chip, 2011, 11, 1952.	6.0	68
93	Ion Diffusion and DNA Stretching in an Open Nanofluidic System. Journal of Nanotechnology in Engineering and Medicine, 2011, 2, .	0.8	1
94	A novel label-free amperometric immunosensor for carcinoembryonic antigen based on redox membrane. Biosensors and Bioelectronics, 2011, 26, 3068-3071.	10.1	98
95	Triangular Auâ€“Ag Nanoframes with Tunable Surface Plasmon Resonance Signal from Visible to Near-Infrared Region. Plasmonics, 2011, 6, 241-244.	3.4	16
96	Synthesis of PSS-capped triangular silver nanoplates with tunable SPR. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2011, 380, 257-260.	4.7	17
97	Cyclic voltammetry studies of TiO2 nanotube arrays electrode: Conductivity and reactivity in the presence of H+ and aqueous redox systems. Electrochimica Acta, 2011, 56, 6498-6502.	5.2	30
98	Modeling Particle Shape-Dependent Dynamics in Nanomedicine. Journal of Nanoscience and Nanotechnology, 2011, 11, 919-928.	0.9	165
99	Characterization of Nanoparticle Distribution in Microcirculation Through a Microfluidics Device. , 2011, , .		0
100	A Hybrid Particle-Cell Model for Nanoparticle Targeted Delivery in Microcirculation. , 2011, , .		0
101	Amperometric glucose biosensor based on a triangular silver nanoprisms/chitosan composite film as immobilization matrix. Biosensors and Bioelectronics, 2010, 26, 1098-1103.	10.1	96
102	A Coupled Particle-Continuum Model of Nanoparticle Targeted Delivery Under Vascular Flow With Experimental Validation. , 2010, , .		0
103	A mesoscale model of DNA interaction with functionalized nanopore. Applied Physics Letters, 2009, 95, 223701.	3.3	9
104	Silicon-Based Novel Bio-Sensing Platforms at the Micro and Nano Scale. ECS Transactions, 2009, 16, 25-45.	0.5	7
105	Rapid detection of Mycobacterium tuberculosis cells by using microtip-based immunoassay. Analytical and Bioanalytical Chemistry, 2009, 393, 1593-1600.	3.7	24
106	Modeling adhesion dynamics of nanoparticles: The effect of flow rates and ligand density. , 2009, , .		0
107	Size-Specific Concentration of DNA to a Nanostructured Tip Using Dielectrophoresis and Capillary Action. Journal of Physical Chemistry B, 2009, 113, 10849-10858.	2.6	39
108	Tissue-Light Interaction During Monitoring of Thermal Lesion Using Quantum Dot Mediated Fluorescence Thermometry. , 2009, , .		1

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109	Adhesion Dynamics of Functional Nanoparticles for Targeted Drug Delivery. IFMBE Proceedings, 2009, , 121-122.	0.3	3
110	Modeling Adhesion of Micro/Nanoparticles Under Shear Flow for Nanomedicine Application. , 2009, , .		0
111	Manipulation of nanoparticles and biomolecules by electric field and surface tension. Computer Methods in Applied Mechanics and Engineering, 2008, 197, 2156-2172.	6.6	40
112	Direct concentration of circulating DNA by using a nanostructured tip. Proceedings of SPIE, 2008, , .	0.8	2
113	A Mesoscale Model for Molecular Interaction in Functionalized Nanopores. , 2008, , .		1
114	Review: Rod-Shaped Nanoparticle Assembly Using an Electric Field. , 2007, , .		0
115	Fluid Flow-Assisted Dielectrophoretic Assembly of Nanowires. Langmuir, 2007, 23, 11932-11940.	3.5	38
116	Immersed electrokinetic finite element method. International Journal for Numerical Methods in Engineering, 2007, 71, 379-405.	2.8	65
117	Hybrid Fiber Fabrication Using an AC Electric Field and Capillary Action. , 2007, , .		1
118	Ion Diffusion Upon Concentrations in Open Nanofluidic Channels. , 2007, , .		0
119	Dielectrophoretic Assembly of Nanowires. Journal of Physical Chemistry B, 2006, 110, 14098-14106.	2.6	168
120	Immersed finite element method and its applications to biological systems. Computer Methods in Applied Mechanics and Engineering, 2006, 195, 1722-1749.	6.6	240
121	Rheology of red blood cell aggregation by computer simulation. Journal of Computational Physics, 2006, 220, 139-154.	3.8	248
122	Coupling of Navier-Stokes equations with protein molecular dynamics and its application to hemodynamics. International Journal for Numerical Methods in Fluids, 2004, 46, 1237-1252.	1.6	128
123	Characterization of DNA-Nanopore Interactions by Molecular Dynamics. American Journal of Biomedical Sciences, 0, , 344-351.	0.2	21