Jiashu Sun

List of Publications by Year in descending order

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106 papers	7,886 citations	31976 53 h-index	49909 87 g-index
110 all docs	110 docs citations	110 times ranked	9665 citing authors

#	Article	IF	Citations
1	Tunable Rigidity of (Polymeric Core)â€“(Lipid Shell) Nanoparticles for Regulated Cellular Uptake. Advanced Materials, 2015, 27, 1402-1407.	21.0	383
2	Field-Free Isolation of Exosomes from Extracellular Vesicles by Microfluidic Viscoelastic Flows. ACS Nano, 2017, 11, 6968-6976.	14.6	369
3	Low-cost thermophoretic profiling of extracellular-vesicle surface proteins for the early detection and classification of cancers. Nature Biomedical Engineering, 2019, 3, 183-193.	22.5	324
4	Point-of-care biochemical assays using gold nanoparticle-implemented microfluidics. Chemical Society Reviews, 2014, 43, 6239-6253.	38.1	290
5	Double spiral microchannel for label-free tumor cell separation and enrichment. Lab on A Chip, 2012, 12, 3952.	6.0	242
6	A Strategy for Depositing Different Types of Cells in Three Dimensions to Mimic Tubular Structures in Tissues. Advanced Materials, 2012, 24, 890-896.	21.0	222
7	Î»-DNA- and Aptamer-Mediated Sorting and Analysis of Extracellular Vesicles. Journal of the American Chemical Society, 2019, 141, 3817-3821.	13.7	198
8	Thermophoretic Detection of Exosomal microRNAs by Nanoflares. Journal of the American Chemical Society, 2020, 142, 4996-5001.	13.7	187
9	One-Step Detection of Pathogens and Viruses: Combining Magnetic Relaxation Switching and Magnetic Separation. ACS Nano, 2015, 9, 3184-3191.	14.6	182
10	Microfluidics for Manipulating Cells. Small, 2013, 9, 9-21.	10.0	175
11	Microfluidic Synthesis of Hybrid Nanoparticles with Controlled Lipid Layers: Understanding Flexibility-Regulated Cellâ€“Nanoparticle Interaction. ACS Nano, 2015, 9, 9912-9921.	14.6	163
12	Microfluidic Sonication To Assemble Exosome Membrane-Coated Nanoparticles for Immune Evasion-Mediated Targeting. Nano Letters, 2019, 19, 7836-7844.	9.1	161
13	Inertial focusing of spherical particles in rectangular microchannels over a wide range of Reynolds numbers. Lab on A Chip, 2015, 15, 1168-1177.	6.0	150
14	Protein analysis of extracellular vesicles to monitor and predict therapeutic response in metastatic breast cancer. Nature Communications, 2021, 12, 2536.	12.8	147
15	Rotation-Facilitated Rapid Transport of Nanorods in Mucosal Tissues. Nano Letters, 2016, 16, 7176-7182.	9.1	140
16	Microfluidic Synthesis of Rigid Nanovesicles for Hydrophilic Reagents Delivery. Angewandte Chemie - International Edition, 2015, 54, 3952-3956.	13.8	134
17	Size-based hydrodynamic rare tumor cell separation in curved microfluidic channels. Biomicrofluidics, 2013, 7, 011802.	2.4	129
18	Point-of-care-testing of nucleic acids by microfluidics. TrAC - Trends in Analytical Chemistry, 2017, 94, 106-116.	11.4	129

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19	A Tubular DNA Nanodevice as a siRNA/Chemoâ€Drug Coâ€delivery Vehicle for Combined Cancer Therapy. Angewandte Chemie - International Edition, 2021, 60, 2594-2598.	13.8	128
20	Quantitative Detection of MicroRNA in One Step via Next Generation Magnetic Relaxation Switch Sensing. ACS Nano, 2016, 10, 6685-6692.	14.6	127
21	Molecular Identification of Tumor-Derived Extracellular Vesicles Using Thermophoresis-Mediated DNA Computation. Journal of the American Chemical Society, 2021, 143, 1290-1295.	13.7	127
22	Microfluidic Methods for Fabrication and Engineering of Nanoparticle Drug Delivery Systems. ACS Applied Bio Materials, 2020, 3, 107-120.	4.6	113
23	Stimulus-Responsive Plasmonic Chiral Signals of Gold Nanorods Organized on DNA Origami. Nano Letters, 2017, 17, 7125-7130.	9.1	109
24	Recent advances in electrospinning technology and biomedical applications of electrospun fibers. Journal of Materials Chemistry B, 2014, 2, 2369.	5.8	108
25	Microfluidics-mediated assembly of functional nanoparticles for cancer-related pharmaceutical applications. Nanoscale, 2016, 8, 12430-12443.	5.6	105
26	Label-Free Isolation and mRNA Detection of Circulating Tumor Cells from Patients with Metastatic Lung Cancer for Disease Diagnosis and Monitoring Therapeutic Efficacy. Analytical Chemistry, 2015, 87, 11893-11900.	6.5	101
27	Point-of-Care Multiplexed Assays of Nucleic Acids Using Microcapillary-based Loop-Mediated Isothermal Amplification. Analytical Chemistry, 2014, 86, 7057-7062.	6.5	100
28	Rapid One-Step Detection of Viral Particles Using an Aptamer-Based Thermophoretic Assay. Journal of the American Chemical Society, 2021, 143, 7261-7266.	13.7	94
29	A dual-readout chemiluminescent-gold lateral flow test for multiplex and ultrasensitive detection of disease biomarkers in real samples. Nanoscale, 2016, 8, 15205-15212.	5.6	93
30	An automated and portable microfluidic chemiluminescence immunoassay for quantitative detection of biomarkers. Lab on A Chip, 2017, 17, 2225-2234.	6.0	93
31	Control over the emerging chirality in supramolecular gels and solutions by chiral microvortices in milliseconds. Nature Communications, 2018, 9, 2599.	12.8	92
32	Integrated Microcapillary for Sample-to-Answer Nucleic Acid Pretreatment, Amplification, and Detection. Analytical Chemistry, 2014, 86, 10461-10466.	6.5	91
33	A Highly Sensitive Goldâ€Nanoparticleâ€Based Assay for Acetylcholinesterase in Cerebrospinal Fluid of Transgenic Mice with Alzheimer's Disease. Advanced Healthcare Materials, 2012, 1, 90-95.	7.6	88
34	Nucleic Acids Analysis. Science China Chemistry, 2021, 64, 171-203.	8.2	88
35	A microfluidic origami chip for synthesis of functionalized polymeric nanoparticles. Nanoscale, 2013, 5, 5262.	5.6	85
36	Microfluidic based high throughput synthesis of lipid-polymer hybrid nanoparticles with tunable diameters. Biomicrofluidics, 2015, 9, 052604.	2.4	84

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37	Nanocrystalline Cellulose-Assisted Generation of Silver Nanoparticles for Nonenzymatic Glucose Detection and Antibacterial Agent. Biomacromolecules, 2016, 17, 2472-2478.	5.4	83
38	A generalized formula for inertial lift on a sphere in microchannels. Lab on A Chip, 2016, 16, 884-892.	6.0	83
39	Hand-powered centrifugal microfluidic platform inspired by the spinning top for sample-to-answer diagnostics of nucleic acids. Lab on A Chip, 2018, 18, 610-619.	6.0	81
40	Label-free isolation of rare tumor cells from untreated whole blood by interfacial viscoelastic microfluidics. Lab on A Chip, 2018, 18, 3436-3445.	6.0	81
41	Microfluidic co-flow of Newtonian and viscoelastic fluids for high-resolution separation of microparticles. Lab on A Chip, 2017, 17, 3078-3085.	6.0	77
42	A microfluidic tubing method and its application for controlled synthesis of polymeric nanoparticles. Lab on A Chip, 2014, 14, 1673-1677.	6.0	75
43	Sheathless Focusing and Separation of Diverse Nanoparticles in Viscoelastic Solutions with Minimized Shear Thinning. Analytical Chemistry, 2016, 88, 12547-12553.	6.5	74
44	Double-Enzymes-Mediated Bioluminescent Sensor for Quantitative and Ultrasensitive Point-of-Care Testing. Analytical Chemistry, 2017, 89, 5422-5427.	6.5	72
45	A DNA origami-based aptamer nanoarray for potent and reversible anticoagulation in hemodialysis. Nature Communications, 2021, 12, 358.	12.8	69
46	Streptavidin-biotin-peroxidase nanocomplex-amplified microfluidics immunoassays for simultaneous detection of inflammatory biomarkers. Analytica Chimica Acta, 2017, 982, 138-147.	5.4	66
47	Enzymatic Assay for Cu(II) with Horseradish Peroxidase and Its Application in Colorimetric Logic Gate. Analytical Chemistry, 2013, 85, 7029-7032.	6.5	65
48	A fully automated centrifugal microfluidic system for sample-to-answer viral nucleic acid testing. Science China Chemistry, 2020, 63, 1498-1506.	8.2	63
49	Highly Robust, Recyclable Displacement Assay for Mercuric Ions in Aqueous Solutions and Living Cells. ACS Nano, 2012, 6, 10999-11008.	14.6	62
50	Lipid Nanovesicles by Microfluidics: Manipulation, Synthesis, and Drug Delivery. Advanced Materials, 2019, 31, e1804788.	21.0	62
51	Culturing Primary Human Osteoblasts on Electrospun Poly(lactic-co-glycolic acid) and Poly(lactic-co-glycolic acid)/Nanohydroxyapatite Scaffolds for Bone Tissue Engineering. ACS Applied Materials & Interfaces, 2013, 5, 5921-5926.	8.0	61
52	Oneâ€Step Microfluidic Synthesis of Nanocomplex with Tunable Rigidity and Acidâ€Switchable Surface Charge for Overcoming Drug Resistance. Small, 2017, 13, 1603109.	10.0	56
53	Inertial migration of deformable droplets in a microchannel. Physics of Fluids, 2014, 26, .	4.0	55
54	High-throughput sample-to-answer detection of DNA/RNA in crude samples within functionalized micro-pipette tips. Biosensors and Bioelectronics, 2016, 75, 28-33.	10.1	55

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55	Integrated Microfluidic Platform with Multiple Functions To Probe Tumorâ€“Endothelial Cell Interaction. Analytical Chemistry, 2017, 89, 10037-10044.	6.5	54
56	An ultrasensitive, non-enzymatic glucose assay via gold nanorod-assisted generation of silver nanoparticles. Nanoscale, 2013, 5, 6303.	5.6	53
57	Microfluidic analysis of circulating tumor cells and tumor-derived extracellular vesicles. TrAC - Trends in Analytical Chemistry, 2019, 117, 128-145.	11.4	53
58	Fabrication of one dimensional superfine polymer fibers by double-spinning. Journal of Materials Chemistry, 2011, 21, 13159.	6.7	51
59	Ultrasensitive detection of mRNA in extracellular vesicles using DNA tetrahedron-based thermophoretic assay. Nano Today, 2021, 38, 101203.	11.9	47
60	Microfluidic technologies for nanoparticle formation. Lab on A Chip, 2022, 22, 512-529.	6.0	45
61	One-step detection of pathogens and cancer biomarkers by the naked eye based on aggregation of immunomagnetic beads. Nanoscale, 2016, 8, 1100-1107.	5.6	44
62	Micro/nanofluidics-enabled single-cell biochemical analysis. TrAC - Trends in Analytical Chemistry, 2018, 99, 66-74.	11.4	43
63	Simultaneous On-Chip DC Dielectrophoretic Cell Separation and Quantitative Separation Performance Characterization. Analytical Chemistry, 2012, 84, 2017-2024.	6.5	42
64	Improving Tumor Targeting of Exosomal Membrane-Coated Polymeric Nanoparticles by Conjugation with Aptamers. ACS Applied Bio Materials, 2020, 3, 2666-2673.	4.6	42
65	Colorimetric Logic Gates through Molecular Recognition and Plasmonic Nanoparticles. Small, 2014, 10, 4833-4838.	10.0	41
66	A compact microfluidic gradient generator using passive pumping. Microfluidics and Nanofluidics, 2012, 12, 887-895.	2.2	36
67	Barcoded Microchips for Biomolecular Assays. Analytical Chemistry, 2015, 87, 900-906.	6.5	34
68	Enantiomorphic Microvortexâ€Enabled Supramolecular Sensing of Racemic Amino Acids by Using Achiral Building Blocks. Angewandte Chemie - International Edition, 2020, 59, 3486-3490.	13.8	34
69	Nanosensors for Diagnosis of Infectious Diseases. ACS Applied Bio Materials, 2021, 4, 3863-3879.	4.6	34
70	Manipulation of bio-micro/nanoparticles in non-Newtonian microflows. Microfluidics and Nanofluidics, 2019, 23, 1.	2.2	31
71	Measurement of the volume growth rate of single budding yeast with the MOSFET-based microfluidic Coulter counter. Lab on A Chip, 2010, 10, 2986.	6.0	30
72	Nanocrystalline Cellulose Improves the Biocompatibility and Reduces the Wear Debris of Ultrahigh Molecular Weight Polyethylene via Weak Binding. ACS Nano, 2016, 10, 298-306.	14.6	30

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73	Stressâ€Induced Selfâ€Assembly of Complex Three Dimensional Structures by Elastic Membranes. Small, 2013, 9, 2410-2414.	10.0	29
74	Microfluidic Separation, Detection, and Engineering of Extracellular Vesicles for Cancer Diagnostics and Drug Delivery. Accounts of Materials Research, 2022, 3, 498-510.	11.7	27
75	Thermomicrofluidics for biosensing applications. View, 2021, 2, 20200148.	5.3	26
76	A microfluidic indirect competitive immunoassay for multiple and sensitive detection of testosterone in serum and urine. Analyst, The, 2016, 141, 815-819.	3.5	22
77	Multiplexed microfluidic blotting of proteins and nucleic acids by parallel, serpentine microchannels. Lab on A Chip, 2015, 15, 105-112.	6.0	21
78	ATP-responsive mitochondrial probes for monitoring metabolic processes of glioma stem cells in a 3D model. Chemical Science, 2020, 11, 2744-2749.	7.4	20
79	Nonspecific Organelle-Targeting Strategy with Coreâ€“Shell Nanoparticles of Varied Lipid Components/Ratios. Analytical Chemistry, 2016, 88, 7344-7351.	6.5	19
80	Impact of Chemical Design on the Molecular Orientation of Conjugated Donorâ€“Acceptor Polymers for Field-Effect Transistors. ACS Applied Polymer Materials, 2022, 4, 2233-2250.	4.4	17
81	Experimental characterization of electrical current leakage in poly(dimethylsiloxane) microfluidic devices. Microfluidics and Nanofluidics, 2009, 6, 589-598.	2.2	14
82	The biocompatibility evaluation of iron oxide nanoparticles synthesized by a one pot process for intravenous iron supply. RSC Advances, 2016, 6, 14329-14334.	3.6	14
83	Profiling proteinâ€“protein interactions of single cancer cells with in situ lysis and co-immunoprecipitation. Lab on A Chip, 2019, 19, 1922-1928.	6.0	14
84	A Microfluidic Cell Size/Density Sensor by Resistive Pulse Detection. Electroanalysis, 2013, 25, 1023-1028.	2.9	13
85	Mesosilica-coated ultrafine fibers for highly efficient laccase encapsulation. Nanoscale, 2014, 6, 6468.	5.6	13
86	Real-time characterization of negative air ion-induced decomposition of indoor organic contaminants by mass spectrometry. Chemical Communications, 2018, 54, 10687-10690.	4.1	11
87	<scp>Exosomeâ€Coated</scp> Zeolitic Imidazolate Framework Nanoparticles for Intracellular Detection of <scp>ATP</scp>^{â€}. Chinese Journal of Chemistry, 2021, 39, 2107-2112.	4.9	11
88	AI in Measurement Science. Annual Review of Analytical Chemistry, 2021, 14, 1-19.	5.4	11
89	Field-Effect Control of Electroosmotic Pumping Using Porous Siliconâ€“Silicon Nitride Membranes. Journal of Microelectromechanical Systems, 2009, 18, 1173-1183.	2.5	9
90	Enantiomorphic Microvortexâ€Enabled Supramolecular Sensing of Racemic Amino Acids by Using Achiral Building Blocks. Angewandte Chemie, 2020, 132, 3514-3518.	2.0	7

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91	Surface modification of nano-silica on the ligament advanced reinforcement system for accelerated bone formation: primary human osteoblasts testing in vitro and animal testing in vivo. Nanoscale, 2015, 7, 8071-8075.	5.6	6
92	Multilayer Ratiometric Fluorescent Nanomachines for Imaging mRNA in Live Cells. Small Methods, 2021, 5, 2001047.	8.6	6
93	Hydrodynamic Cell Enrichment in Double Spiral Microfluidic Channels. ECS Transactions, 2013, 50, 441-445.	0.5	5
94	Microfluidic devices for viral detection. , 2013, , 527-556.		5
95	Reference channel-based microfluidic resistance sensing for single yeast cell volume growth measurement. Microfluidics and Nanofluidics, 2017, 21, 1.	2.2	4
96	Oneâ€Step Thermophoretic AND Gate Operation on Extracellular Vesicles Improves Diagnosis of Prostate Cancer. Angewandte Chemie, 2022, 134, .	2.0	3
97	Investigation of carbon deposition induced by pyrolytic decomposition of ethylene. RSC Advances, 2017, 7, 29639-29644.	3.6	2
98	Recent research progress of nanocellulose crystal and its composites with polymers. Chinese Science Bulletin, 2013, 58, 2385-2392.	0.7	2
99	Drug Delivery: Oneâ€Step Microfluidic Synthesis of Nanocomplex with Tunable Rigidity and Acidâ€Switchable Surface Charge for Overcoming Drug Resistance (Small 9/2017). Small, 2017, 13, .	10.0	1
100	Microfluidics for nanomaterial synthesis. , 2022, , 429-453.		1
101	Electrical Leakage Through Thin PDMS Microchannel Walls and its Applications. , 2008, , .		0
102	Measurement of Budding Yeast Growth Rate With MOSFET-Based Microfluidic Coulter Counters. , 2008, , .		0
103	Microfluidics, Nanofluidics, and Labâ€onâ€aâ€Chip in Asia 2019. Electrophoresis, 2020, 41, 757-757.	2.4	0
104	Microfluidic devices for viral detection. , 2021, , 587-615.		0
105	Measurement of the Volume Growth Rate of Single Budding Yeast. , 2009, , .		0
106	Inertial Microfluidics for Separation and Detection of Tumor Cells. , 2013, , .		0