

Zhonghua Ni

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/2349696/zhonghua-ni-publications-by-year.pdf>

Version: 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

126
papers

1,362
citations

21
h-index

29
g-index

137
ext. papers

1,805
ext. citations

4.2
avg. IF

5.23
L-index

#	Paper	IF	Citations
126	Graph-in-Graph Convolutional Network for Ultrasonic Guided Wave-Based Damage Detection and Localization. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2022 , 1-1	5.2	1
125	Reliability and Life Prediction Algorithms of Insulated Cables Based on Wireless Network Communication. <i>Wireless Communications and Mobile Computing</i> , 2022 , 2022, 1-12	1.9	
124	Cost-effective portable microfluidic impedance cytometer for broadband impedance cell analysis based on viscoelastic focusing.. <i>Talanta</i> , 2022 , 242, 123274	6.2	2
123	Stackable micromixer with modular design for efficient mixing over wide Reynold numbers. <i>International Journal of Heat and Mass Transfer</i> , 2022 , 183, 122129	4.9	2
122	Inertial Microfluidics for Single-Cell Manipulation and Analysis 2022 , 155-184		
121	A poly(l-lactic acid) braided stent with high mechanical properties during in vitro degradation in bile. <i>Journal of Applied Polymer Science</i> , 2022 , 139, 51685	2.9	0
120	Glucose sensing on screen-printed electrochemical electrodes based on porous graphene aerogel @prussian blue.. <i>Biomedical Microdevices</i> , 2022 , 24, 14	3.7	0
119	The elevation of serum uric acid depends on insulin resistance but not fasting plasma glucose in hyperuricaemia. <i>Clinical and Experimental Rheumatology</i> , 2022 , 40, 613-619	2.2	
118	Evaluation of poly (L-lactic acid) monofilaments with high mechanical performance in vitro degradation. <i>Journal of Materials Science</i> , 2022 , 57, 6361-6371	4.3	0
117	Mixed-braided stent: An effective way to improve comprehensive mechanical properties of poly (L-lactic acid) self-expandable braided stent.. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2022 , 128, 105123	4.1	0
116	A novel inversion method of 2D TD-NMR signals based on realizing unconstrained maximization of objective function.. <i>Journal of Magnetic Resonance</i> , 2022 , 337, 107168	3	
115	Improved mechanical properties of poly(l-lactic acid) stent coated by poly(d , l-lactic acid) and poly(l-lactic-co-glycolic acid) biopolymer blend. <i>Polymers for Advanced Technologies</i> , 2022 , 33, 1109-1115	3.2	0
114	Discrimination of tumor cell type based on cytometric detection of dielectric properties.. <i>Talanta</i> , 2022 , 246, 123524	6.2	1
113	A Low-cost Low-field Nuclear Magnetic Resonance Cryoporometry System for Nanopore Size Measurement. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2022 , 1-1	5.2	
112	Portable and Intelligent Urine Glucose Analyzer Based on a CdTe QDs@GOx Aerogel Circular Array Sensor.. <i>ACS Omega</i> , 2021 , 6, 32655-32662	3.9	1
111	An NMR Relaxation Method of Characterizing Hydrogen-Bearing Crystalline Solid Phases in Hydrated Cement Paste. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2021 , 1-1	5.2	3
110	Optimized radio frequency coil for noninvasive magnetic resonance relaxation detection of human finger.. <i>Journal of Magnetic Resonance</i> , 2021 , 335, 107125	3	

109	Effects of annealing constraint methods on poly(L-lactic acid) monofilaments for application in stents annealing. <i>Polymers for Advanced Technologies</i> , 2021 , 32, 2378-2385	3.2	3
108	Poly(l-lactic acid) monofilaments for biodegradable braided self-expanding stent. <i>Journal of Materials Science</i> , 2021 , 56, 12383-12393	4.3	4
107	Secondary-flow-aided single-train elastic-inertial focusing in low elasticity viscoelastic fluids. <i>Electrophoresis</i> , 2021 , 42, 2256-2263	3.6	4
106	A polymer-film inertial microfluidic sorter fabricated by jigsaw puzzle method for precise size-based cell separation. <i>Analytica Chimica Acta</i> , 2021 , 1143, 306-314	6.6	14
105	A poly(L-lactic acid) monofilament with high mechanical properties for application in biodegradable biliary stents. <i>Journal of Applied Polymer Science</i> , 2021 , 138, 49656	2.9	8
104	Early Stage Variation Simulation and Visualization of Compliant Part Based on Parametric Space Envelope. <i>IEEE Transactions on Automation Science and Engineering</i> , 2021 , 18, 1505-1515	4.9	0
103	A generic integrated approach of assembly tolerance analysis based on skin model shapes. <i>Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture</i> , 2021 , 235, 689-704	2.4	7
102	Inertial microfluidics for high-throughput cell analysis and detection: a review. <i>Analyst, The</i> , 2021 , 146, 6064-6083	5	5
101	Effects of constraint between filaments on the radial compression properties of poly (l-lactic acid) self-expandable braided stents. <i>Polymer Testing</i> , 2021 , 93, 106963	4.5	3
100	Effects of annealing temperature on both radial supporting performance and axial flexibility of poly(L-lactic acid) braided stents. <i>Journal of Applied Polymer Science</i> , 2021 , 138, 50517	2.9	7
99	A study of the radial and bending performance for poly (L-lactic acid) braided stents with innovative runners. <i>Polymers for Advanced Technologies</i> , 2021 , 32, 4690	3.2	1
98	An easy-fabricated and disposable polymer-film microfluidic impedance cytometer for cell sensing. <i>Analytica Chimica Acta</i> , 2021 , 1175, 338759	6.6	3
97	Microfluidic impedance cytometry for single-cell sensing: Review on electrode configurations. <i>Talanta</i> , 2021 , 233, 122571	6.2	11
96	Electricity-free hand-held inertial microfluidic sorter for size-based cell sorting. <i>Talanta</i> , 2021 , 235, 122867	6.2	4
95	Lung detection and severity prediction of pneumonia patients based on COVID-19 DET-PRE network.. <i>Expert Review of Medical Devices</i> , 2021 , 1-10	3.5	1
94	Deformability cytometry for high-throughput cell mechanical phenotyping. <i>Science Bulletin</i> , 2020 , 65, 2045-2047	10.6	1
93	The effect of intrinsic characteristics on mechanical properties of poly(l-lactic acid) bioresorbable vascular stents. <i>Medical Engineering and Physics</i> , 2020 , 81, 118-124	2.4	3
92	Microfluidic on-demand engineering of longitudinal dynamic self-assembly of particles. <i>Analyst, The</i> , 2020 , 145, 5128-5133	5	8

91	A 3D porous graphene aerogel@GOx based microfluidic biosensor for electrochemical glucose detection. <i>Analyst, The</i> , 2020 , 145, 5141-5147	5	16
90	Screen-printed electrochemical biosensor based on a ternary Co@MoS ₂ /rGO functionalized electrode for high-performance non-enzymatic glucose sensing. <i>Biomedical Microdevices</i> , 2020 , 22, 17	3.7	8
89	Colorimetric detection of urine glucose using a C/CdTe QDs-GOx aerogel based on a microfluidic assay sensor. <i>Journal of Materials Chemistry B</i> , 2020 , 8, 7160-7165	7.3	4
88	Step emulsification: high-throughput production of monodisperse droplets. <i>BioTechniques</i> , 2020 , 68, 114-116	2.5	17
87	An assembling algorithm for fixture in an assembly process planning system. <i>Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture</i> , 2020 , 234, 1133-1155	2.4	3
86	On the Design of an Integrated System for Wave Energy Conversion Purpose with the Reaction Mass on Board. <i>Sustainability</i> , 2020 , 12, 2865	3.6	2
85	Power Generation from Salinity Gradient by Reverse Electrodialysis in Silicon Nitride Nanopores. <i>Nano</i> , 2020 , 15, 2050148	1.1	0
84	Inertial Microfluidics for Single-Cell Manipulation and Analysis 2020 , 1-30		
83	Low-cost multi-core inertial microfluidic centrifuge for high-throughput cell concentration. <i>Electrophoresis</i> , 2020 , 41, 875-882	3.6	4
82	Inertial microfluidic cube for automatic and fast extraction of white blood cells from whole blood. <i>Lab on A Chip</i> , 2020 , 20, 244-252	7.2	22
81	Droplet-based microreactor for the production of micro/nano-materials. <i>Electrophoresis</i> , 2020 , 41, 833-856	3.6	12
80	Developing a versatile electrochemical platform with optimized electrode configuration through screen-printing technology toward glucose detection. <i>Biomedical Microdevices</i> , 2020 , 22, 74	3.7	1
79	Ultrahigh throughput beehive-like device for blood plasma separation. <i>Electrophoresis</i> , 2020 , 41, 2136	3.6	2
78	A single-view field filter device for rare tumor cell filtration and enumeration. <i>Electrophoresis</i> , 2020 , 41, 2000-2006	3.6	2
77	Preparation and evaluation of poly(D, L-lactic acid)/poly(L-lactide-co-ε-caprolactone) blends for tunable sirolimus release. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2020 , 590, 124518	5.1	6
76	Layer-by-layer self-assembly of MoS ₂ /PDDA hybrid film in microfluidic chips for ultrasensitive electrochemical immunosensing of alpha-fetoprotein. <i>Microchemical Journal</i> , 2020 , 158, 105209	4.8	6
75	Microfluidics for label-free sorting of rare circulating tumor cells. <i>Analyst, The</i> , 2020 , 145, 7103-7124	5	19
74	Combining Inertial Microfluidics with Cross-Flow Filtration for High-Fold and High-Throughput Passive Volume Reduction. <i>Analytical Chemistry</i> , 2020 , 92, 6770-6776	7.8	16

73	Flow stabilizer on a syringe tip for hand-powered microfluidic sample injection. <i>Lab on A Chip</i> , 2019 , 19, 214-222	7.2	24
72	Simple and sensitive colorimetric detection of a trace amount of 2,4,6-trinitrotoluene (TNT) with QD multilayer-modified microchannel assays. <i>Materials Chemistry Frontiers</i> , 2019 , 3, 193-198	7.8	17
71	Circular-channel particle focuser utilizing viscoelastic focusing. <i>Microfluidics and Nanofluidics</i> , 2019 , 23, 1	2.8	10
70	Numerical and Experimental Study of the Solo Duck Wave Energy Converter. <i>Energies</i> , 2019 , 12, 1941	3.1	3
69	Cobalt functionalized MoS ₂ /carbon nanotubes scaffold for enzyme-free glucose detection with extremely low detection limit. <i>Sensors and Actuators B: Chemical</i> , 2019 , 293, 122-128	8.5	25
68	Microfluidic Approaches Toward the Isolation and Detection of Exosome Nanovesicles. <i>IEEE Access</i> , 2019 , 7, 45080-45098	3.5	14
67	Visual detection of mixed organophosphorous pesticide using QD-AChE aerogel based microfluidic arrays sensor. <i>Biosensors and Bioelectronics</i> , 2019 , 136, 112-117	11.8	41
66	A Multilayer Polymer-Film Inertial Microfluidic Device for High-Throughput Cell Concentration. <i>Analytical Chemistry</i> , 2019 , 91, 5461-5468	7.8	19
65	Drastically Reduced Ion Mobility in a Nanopore Due to Enhanced Pairing and Collisions between Dehydrated Ions. <i>Journal of the American Chemical Society</i> , 2019 , 141, 4264-4272	16.4	25
64	Precise Size-Based Cell Separation via the Coupling of Inertial Microfluidics and Deterministic Lateral Displacement. <i>Analytical Chemistry</i> , 2019 , 91, 10328-10334	7.8	50
63	Dielectrophoretic manipulation of nanomaterials: A review. <i>Electrophoresis</i> , 2019 , 40, 873-889	3.6	20
62	Intelligent design based on holographic model using parametric design method. <i>Journal of Ambient Intelligence and Humanized Computing</i> , 2019 , 10, 1241-1255	3.7	1
61	Automated Microfluidic Instrument for Label-Free and High-Throughput Cell Separation. <i>Analytical Chemistry</i> , 2018 , 90, 4212-4220	7.8	37
60	A Novel Geometric Tolerance Modeling Inspired by Parametric Space Envelope. <i>IEEE Transactions on Automation Science and Engineering</i> , 2018 , 15, 1386-1398	4.9	10
59	A new method of reusing the manufacturing information for the slightly changed 3D CAD model. <i>Journal of Intelligent Manufacturing</i> , 2018 , 29, 1827-1844	6.7	10
58	Integrating modeling mechanism for three-dimensional casting process model based on MBD. <i>International Journal of Advanced Manufacturing Technology</i> , 2018 , 94, 3145-3162	3.2	4
57	A Fixture Design Retrieving Method Based on Constrained Maximum Common Subgraph. <i>IEEE Transactions on Automation Science and Engineering</i> , 2018 , 15, 692-704	4.9	1
56	Concentration-controlled particle focusing in spiral elasto-inertial microfluidic devices. <i>Electrophoresis</i> , 2018 , 39, 417-424	3.6	31

55	Effect of flow on the apparent transverse relaxation time in a microfluidic nuclear magnetic resonance chip. <i>Spectroscopy Letters</i> , 2018 , 51, 74-80	1.1	2
54	Inertial Microfluidic Syringe Cell Concentrator. <i>Analytical Chemistry</i> , 2018 , 90, 9515-9522	7.8	30
53	Visual detection of glucose based on quantum dots aerogel in microfluidic chips. <i>Analytical Methods</i> , 2018 , 10, 5749-5754	3.2	8
52	Low-field nuclear magnetic resonance spectrometer for non-invasive monitoring of fluctuations in blood glucose in the human finger. <i>Spectroscopy Letters</i> , 2018 , 51, 395-401	1.1	3
51	Paper-based graphene oxide biosensor coupled with smartphone for the quantification of glucose in oral fluid. <i>Biomedical Microdevices</i> , 2018 , 20, 89	3.7	24
50	In vitro release study of sirolimus from a PDLLA matrix on a bioresorbable drug-eluting stent. <i>Journal of Drug Delivery Science and Technology</i> , 2018 , 48, 88-95	4.5	4
49	An approach to mapping machining feature to manufacturing feature volume based on geometric reasoning for process planning. <i>Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture</i> , 2017 , 231, 1204-1216	2.4	18
48	Microfluidic Impedance Cytometer with Inertial Focusing and Liquid Electrodes for High-Throughput Cell Counting and Discrimination. <i>Analytical Chemistry</i> , 2017 , 89, 3154-3161	7.8	50
47	Design of a multilayer Halbach permanent magnet for human finger NMR detection. <i>International Journal of Applied Electromagnetics and Mechanics</i> , 2017 , 54, 315-327	0.4	6
46	Inexpensive, rapid fabrication of polymer-film microfluidic autoregulatory valve for disposable microfluidics. <i>Biomedical Microdevices</i> , 2017 , 19, 21	3.7	18
45	Miniature nuclear magnetic resonance spectrometer using a partially enclosed permanent magnet. <i>Instrumentation Science and Technology</i> , 2017 , 45, 324-337	1.4	4
44	A portable single-cell analysis system integrating hydrodynamic trapping with broadband impedance spectroscopy. <i>Science China Technological Sciences</i> , 2017 , 60, 1707-1715	3.5	6
43	Rapid separation of human breast cancer cells from blood using a simple spiral channel device. <i>Analytical Methods</i> , 2016 , 8, 5940-5948	3.2	15
42	Fundamentals of elasto-inertial particle focusing in curved microfluidic channels. <i>Lab on A Chip</i> , 2016 , 16, 2626-35	7.2	70
41	Numerical simulation of particle focusing in a symmetrical serpentine microchannel. <i>RSC Advances</i> , 2016 , 6, 57647-57657	3.7	28
40	A low cost and quasi-commercial polymer film chip for high-throughput inertial cell isolation. <i>RSC Advances</i> , 2016 , 6, 9734-9742	3.7	22
39	Passive flow regulator for precise high-throughput flow rate control in microfluidic environments. <i>RSC Advances</i> , 2016 , 6, 31639-31646	3.7	15
38	Assembly process modeling mechanism based on the product hierarchy. <i>International Journal of Advanced Manufacturing Technology</i> , 2016 , 82, 391-405	3.2	11

37	Application of ant colony optimization algorithm in integrated process planning and scheduling. <i>International Journal of Advanced Manufacturing Technology</i> , 2016 , 84, 393-404	3.2	18
36	A systematic method for the automatic update and propagation of the machining process models in the process modification. <i>International Journal of Advanced Manufacturing Technology</i> , 2016 , 82, 473-487	3.2	9
35	A microfluidic gas damper for stabilizing gas pressure in portable microfluidic systems. <i>Biomicrofluidics</i> , 2016 , 10, 054123	3.2	8
34	Focusing dynamics of finite-sized particles in confined microfluidic channels. <i>Applied Physics Express</i> , 2016 , 9, 027001	2.4	4
33	An algorithm of mapping the protrusion feature on the slanting face to its manufacturing feature volume in the process planning. <i>International Journal of Advanced Manufacturing Technology</i> , 2015 , 79, 361-376	3.2	7
32	A passive flow regulator with low threshold pressure for high-throughput inertial isolation of microbeads. <i>Lab on A Chip</i> , 2015 , 15, 3473-80	7.2	33
31	Temperature effects on the friction characteristics of graphene. <i>Applied Physics Letters</i> , 2015 , 107, 011601	6.4	17
30	Wafer-level site-controlled growth of silicon nanowires by Cu pattern dewetting. <i>Nano Research</i> , 2015 , 8, 2646-2653	10	3
29	High-throughput blood cell focusing and plasma isolation using spiral inertial microfluidic devices. <i>Biomedical Microdevices</i> , 2015 , 17, 110	3.7	46
28	Inertia-induced focusing dynamics of microparticles throughout a curved microfluidic channel. <i>Microfluidics and Nanofluidics</i> , 2015 , 18, 29-39	2.8	30
27	Detection of short single-strand DNA homopolymers with ultrathin Si ₃ N ₄ nanopores. <i>Physical Review E</i> , 2015 , 92, 022719	2.4	13
26	Improved understanding of particle migration modes in spiral inertial microfluidic devices. <i>RSC Advances</i> , 2015 , 5, 77264-77273	3.7	33
25	The design and fabrication of a low-field NMR probe based on a multilayer planar microcoil. <i>Microsystem Technologies</i> , 2014 , 20, 419-425	1.7	7
24	Imaging the condensation and evaporation of molecularly thin ethanol films with surface forces apparatus. <i>Review of Scientific Instruments</i> , 2014 , 85, 013702	1.7	2
23	Theoretical and experimental studies on ionic currents in nanopore-based biosensors. <i>IET Nanobiotechnology</i> , 2014 , 8, 247-56	2	2
22	Directed transport and location-designated rotation of nanowires using ac electric fields. <i>Microfluidics and Nanofluidics</i> , 2014 , 16, 237-246	2.8	2
21	Nanopore detection of DNA molecules in magnesium chloride solutions. <i>Nanoscale Research Letters</i> , 2013 , 8, 245	5	27
20	Quantitative characterization of the focusing process and dynamic behavior of differently sized microparticles in a spiral microchannel. <i>Microfluidics and Nanofluidics</i> , 2013 , 14, 89-99	2.8	28

19	Tribological Properties of Stearic Acid Modified Multi-Walled Carbon Nanotubes in Water. <i>Journal of Tribology</i> , 2013 , 135,	1.8	12
18	Optimization and experimental test of a miniature permanent magnet structure for a microfluidic magnetic resonance chip. <i>International Journal of Applied Electromagnetics and Mechanics</i> , 2013 , 42, 479-489	2.4	3
17	High-throughput inertial particle focusing in a curved microchannel: Insights into the flow-rate regulation mechanism and process model. <i>Biomicrofluidics</i> , 2013 , 7, 44116	3.2	37
16	Lattice Boltzmann numerical simulation and experimental research of dynamic flow in an expansion-contraction microchannel. <i>Biomicrofluidics</i> , 2013 , 7, 34113	3.2	10
15	Dynamic self-assembly of particles in an expanding channel flow. <i>Applied Physics Letters</i> , 2013 , 103, 071905	3.4	9
14	Dynamics simulation of positioning and assembling multi-microparticles utilizing optoelectronic tweezers. <i>Microfluidics and Nanofluidics</i> , 2012 , 12, 529-544	2.8	11
13	Measurement of thermal boundary conductance between metal and dielectric materials using femtosecond laser transient thermoreflectance technique. <i>Science China Technological Sciences</i> , 2012 , 55, 1044-1049	3.5	6
12	Light-induced electro-rotation: Microspheres spin in micro-manipulation using light-induced dielectrophoresis. <i>Science China Technological Sciences</i> , 2011 , 54, 3035-3046	3.5	1
11	Study on ultrasonic spray technology for the coating of vascular stent. <i>Science China Technological Sciences</i> , 2011 , 54, 3358-3370	3.5	8
10	Surface enhanced Raman scattering of aged graphene: Effects of annealing in vacuum. <i>Applied Physics Letters</i> , 2011 , 99, 233103	3.4	20
9	Novel PS Composites by Using Artificial Lamellar Hybrid from Octa(β-chloroaminopropyl) POSS and Surfactant. <i>Polymer-Plastics Technology and Engineering</i> , 2011 , 50, 73-79		10
8	Preparation and Characterizations of Novel PS Composites Containing OctaTMA-POSS-based Lamellar Hybrids. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 2011 , 60, 947-958	3.3	7
7	Rapid prediction method for nonlinear expansion process of medical vascular stent. <i>Science in China Series D: Earth Sciences</i> , 2009 , 52, 1323-1330		3
6	Molecular dynamics simulation for aggregation phenomena of nanocolloids. <i>Science in China Series D: Earth Sciences</i> , 2009 , 52, 484-490		3
5	Separation of nanocolloids driven by dielectrophoresis: A molecular dynamics simulation. <i>Science in China Series D: Earth Sciences</i> , 2009 , 52, 1874-1881		7
4	Research on critical technology of micro/nano bioparticles manipulation platform based on light-induced dielectrophoresis. <i>Science in China Series D: Earth Sciences</i> , 2009 , 52, 2831-2839		3
3	Surface Defect Classification of Steel Strip with Few Samples Based on Dual-Stream Neural Network. <i>Steel Research International</i> , 2100554	1.6	3
2	Evaluation of mechanical properties of poly(L-lactic acid) braided stents with axial stiffeners. <i>Journal of Applied Polymer Science</i> , 52242	2.9	

- 1 Different properties of poly(L-lactic acid) monofilaments and its corresponding braided springs after constrained and unconstrained annealing. *Journal of Biomaterials Applications*, 088532822210959 2.9