

# Min-Hsien Wu

## List of Publications by Year in descending order

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Version: 2024-02-01

66  
papers

1,848  
citations

236925

25  
h-index

276875

41  
g-index

68  
all docs

68  
docs citations

68  
times ranked

2714  
citing authors

#	ARTICLE	IF	CITATIONS
1	High-purity and label-free isolation of circulating tumor cells (CTCs) in a microfluidic platform by using optically-induced-dielectrophoretic (ODEP) force. <i>Lab on A Chip</i> , 2013, 13, 1371.	6.0	187
2	Microfluidic Impedance Flow Cytometry Enabling High-Throughput Single-Cell Electrical Property Characterization. <i>International Journal of Molecular Sciences</i> , 2015, 16, 9804-9830.	4.1	125
3	Effect of Extracellular pH on Matrix Synthesis by Chondrocytes in 3D Agarose Gel. <i>Biotechnology Progress</i> , 2007, 23, 430-434.	2.6	86
4	Simple poly(dimethylsiloxane) surface modification to control cell adhesion. <i>Surface and Interface Analysis</i> , 2009, 41, 11-16.	1.8	83
5	Predicting breast cancer metastasis by using serum biomarkers and clinicopathological data with machine learning technologies. <i>International Journal of Medical Informatics</i> , 2019, 128, 79-86.	3.3	81
6	Application of optically-induced-dielectrophoresis in microfluidic system for purification of circulating tumour cells for gene expression analysis- Cancer cell line model. <i>Scientific Reports</i> , 2016, 6, 32851.	3.3	79
7	Review of emerging biomarkers in head and neck squamous cell carcinoma in the era of immunotherapy and targeted therapy. <i>Head and Neck</i> , 2019, 41, 19-45.	2.0	70
8	Optically-induced-dielectrophoresis (ODEP)-based cell manipulation in a microfluidic system for high-purity isolation of integral circulating tumor cell (CTC) clusters based on their size characteristics. <i>Sensors and Actuators B: Chemical</i> , 2018, 258, 1161-1173.	7.8	62
9	An integrated microfluidic cell culture system for high-throughput perfusion three-dimensional cell culture-based assays: effect of cell culture model on the results of chemosensitivity assays. <i>Lab on A Chip</i> , 2013, 13, 1133.	6.0	55
10	Fabrication of two-layer dissolving polyvinylpyrrolidone microneedles with different molecular weights for in vivo insulin transdermal delivery. <i>RSC Advances</i> , 2017, 7, 5067-5075.	3.6	51
11	Development of high throughput optical sensor array for on-line pH monitoring in micro-scale cell culture environment. <i>Biomedical Microdevices</i> , 2009, 11, 265-273.	2.8	46
12	Utilization of optically induced dielectrophoresis in a microfluidic system for sorting and isolation of cells with varied degree of viability: Demonstration of the sorting and isolation of drug-treated cancer cells with various degrees of anti-cancer drug resistance gene expression. <i>Sensors and Actuators B: Chemical</i> , 2019, 283, 621-631.	7.8	44
13	A negative selection system PowerMag for effective leukocyte depletion and enhanced detection of EpCAM positive and negative circulating tumor cells. <i>Clinica Chimica Acta</i> , 2013, 419, 77-84.	1.1	43
14	Development of high throughput microfluidic cell culture chip for perfusion 3-dimensional cell culture-based chemosensitivity assay. <i>Sensors and Actuators B: Chemical</i> , 2011, 155, 397-407.	7.8	39
15	Application of indium tin oxide (ITO)-based microheater chip with uniform thermal distribution for perfusion cell culture outside a cell incubator. <i>Biomedical Microdevices</i> , 2010, 12, 389-398.	2.8	37
16	The Structure Design of Piezoelectric Poly(vinylidene Fluoride) (PVDF) Polymer-Based Sensor Patch for the Respiration Monitoring under Dynamic Walking Conditions. <i>Sensors</i> , 2015, 15, 18801-18812.	3.8	35
17	An Optically Induced Dielectrophoresis (ODEP)-Based Microfluidic System for the Isolation of High-Purity CD45 <sup>neg</sup> /EpCAM <sup>neg</sup> Cells from the Blood Samples of Cancer Patients—Demonstration and Initial Exploration of the Clinical Significance of These Cells. <i>Micromachines</i> , 2018, 9, 563.	2.9	35
18	A SU-8/PDMS Hybrid Microfluidic Device with Integrated Optical Fibers for Online Monitoring of Lactate. <i>Biomedical Microdevices</i> , 2005, 7, 323-329.	2.8	34

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19	Circulating Tumour Cells as an Independent Prognostic Factor in Patients with Advanced Oesophageal Squamous Cell Carcinoma Undergoing Chemoradiotherapy. <i>Scientific Reports</i> , 2016, 6, 31423.	3.3	34
20	Development of a Microfluidic-Based Optical Sensing Device for Label-Free Detection of Circulating Tumor Cells (CTCs) Through Their Lactic Acid Metabolism. <i>Sensors</i> , 2015, 15, 6789-6806.	3.8	33
21	Probing circuit of Papez with stimulation of anterior nucleus of the thalamus and hippocampal evoked potentials. <i>Epilepsy Research</i> , 2020, 159, 106248.	1.6	32
22	The change in circulating tumor cells before and during concurrent chemoradiotherapy is associated with survival in patients with locally advanced head and neck cancer. <i>Head and Neck</i> , 2019, 41, 2676-2687.	2.0	31
23	Awake craniotomies for epileptic gliomas: intraoperative and postoperative seizure control and prognostic factors. <i>Journal of Neuro-Oncology</i> , 2019, 142, 577-586.	2.9	30
24	A low-sample-loss microfluidic system for the quantification of size-independent cellular electrical property—its demonstration for the identification and characterization of circulating tumour cells (CTCs). <i>Sensors and Actuators B: Chemical</i> , 2017, 246, 29-37.	7.8	28
25	The Effect of Primary Cancer Cell Culture Models on the Results of Drug Chemosensitivity Assays: The Application of Perfusion Microbioreactor System as Cell Culture Vessel. <i>BioMed Research International</i> , 2015, 2015, 1-10.	1.9	27
26	Targeting analysis of a novel parietal approach for deep brain stimulation of the anterior nucleus of the thalamus for epilepsy. <i>Epilepsy Research</i> , 2019, 153, 1-6.	1.6	27
27	Application of an optically induced dielectrophoresis (ODEP)-based microfluidic system for the detection and isolation of bacteria with heterogeneity of antibiotic susceptibility. <i>Sensors and Actuators B: Chemical</i> , 2020, 307, 127540.	7.8	25
28	The Combination of Immunomagnetic Bead-Based Cell Isolation and Optically Induced Dielectrophoresis (ODEP)-Based Microfluidic Device for the Negative Selection-Based Isolation of Circulating Tumor Cells (CTCs). <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 921.	4.1	23
29	Development of microfluidic alginate microbead generator tunable by pulsed airflow injection for the microencapsulation of cells. <i>Microfluidics and Nanofluidics</i> , 2010, 8, 823-835.	2.2	22
30	Application of high throughput perfusion micro 3-D cell culture platform for the precise study of cellular responses to extracellular conditions -effect of serum concentrations on the physiology of articular chondrocytes. <i>Biomedical Microdevices</i> , 2011, 13, 131-141.	2.8	22
31	Development of a high sensitivity TaqMan-based PCR assay for the specific detection of Mycobacterium tuberculosis complex in both pulmonary and extrapulmonary specimens. <i>Scientific Reports</i> , 2019, 9, 113.	3.3	22
32	A Prognostic Model Based on Circulating Tumour Cells is Useful for Identifying the Poorest Survival Outcome in Patients with Metastatic Colorectal Cancer. <i>International Journal of Biological Sciences</i> , 2018, 14, 137-146.	6.4	21
33	Development of high-throughput perfusion-based microbioreactor platform capable of providing tunable dynamic tensile loading to cells and its application for the study of bovine articular chondrocytes. <i>Biomedical Microdevices</i> , 2011, 13, 789-798.	2.8	18
34	Isolation of label-free and viable circulating tumour cells (CTCs) from blood samples of cancer patients through a two-step process: negative selection-type immunomagnetic beads and spheroid cell culture-based cell isolation. <i>RSC Advances</i> , 2017, 7, 29339-29349.	3.6	18
35	Improving Multi-Tumor Biomarker Health Check-Up Tests with Machine Learning Algorithms. <i>Cancers</i> , 2020, 12, 1442.	3.7	16
36	Development of a micro-scale perfusion 3D cell culture biochip with an incorporated electrical impedance measurement scheme for the quantification of cell number in a 3D cell culture construct. <i>Microfluidics and Nanofluidics</i> , 2012, 12, 117-125.	2.2	15

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37	The Effect of Optically Induced Dielectrophoresis (ODEP)-Based Cell Manipulation in a Microfluidic System on the Properties of Biological Cells. <i>Biosensors</i> , 2020, 10, 65.	4.7	15
38	High- $\kappa$ $\text{Ti}_2\text{O}_7$ Electrolyte-Insulator-Semiconductor Creatinine Biosensor. <i>IEEE Sensors Journal</i> , 2011, 11, 2388-2394.	4.7	14
39	Membrane capacitance of thousands of single white blood cells. <i>Journal of the Royal Society Interface</i> , 2017, 14, 20170717.	3.4	14
40	The Integration of a Three-Dimensional Spheroid Cell Culture Operation in a Circulating Tumor Cell (CTC) Isolation and Purification Process: A Preliminary Study of the Clinical Significance and Prognostic Role of the CTCs Isolated from the Blood Samples of Head and Neck Cancer Patients. <i>Cancers</i> , 2019, 11, 783.	3.7	14
41	Delayed diagnosis of atrial fibrillation after first-ever stroke increases recurrent stroke risk: a 5-year nationwide follow-up study. <i>Internal Medicine Journal</i> , 2018, 48, 661-667.	0.8	13
42	Development of high- $\kappa$ $\text{Ti}_2\text{O}_7$ sensing membrane-based electrolyte-insulator-semiconductor for pH detection and its application for glucose biosensing using poly(N-isopropylacrylamide) as an enzyme encapsulation material. <i>Journal of Materials Chemistry</i> , 2011, 21, 539-547.	6.7	12
43	Label-free detection of DNA using high- $\beta$ $\text{Lu}_2\text{Ti}_2\text{O}_7$ electrolyte-insulator-semiconductors. <i>Journal of Materials Chemistry</i> , 2012, 22, 1358-1363.	6.7	12
44	The Prognostic Roles of Pretreatment Circulating Tumor Cells, Circulating Cancer Stem-Like Cells, and Programmed Cell Death-1 Expression on Peripheral Lymphocytes in Patients with Initially Unresectable, Recurrent or Metastatic Head and Neck Cancer: An Exploratory Study of Three Biomarkers in One-time Blood Drawing. <i>Cancers</i> , 2019, 11, 540.	3.7	12
45	A pneumatically-driven microfluidic system for size-tunable generation of uniform cell-encapsulating collagen microbeads with the ultrastructure similar to native collagen. <i>Biomedical Microdevices</i> , 2014, 16, 345-354.	2.8	10
46	High dielectric constant $\text{Pr}_x\text{Y}_x\text{O}_y$ sensing films electrolyte-insulator-semiconductor pH-sensor for the detection of urea. <i>Analytica Chimica Acta</i> , 2009, 651, 36-41.	5.4	9
47	Circulating epithelial cell enumeration facilitates the identification and follow-up of a patient with early stage papillary thyroid microcarcinoma: A case report. <i>Clinica Chimica Acta</i> , 2016, 454, 107-111.	1.1	9
48	The Prognostic Value of Circulating Tumor Cells in Asian Neuroendocrine Tumors. <i>Scientific Reports</i> , 2019, 9, 19917.	3.3	9
49	Energy Efficiency of Inference Algorithms for Clinical Laboratory Data Sets: Green Artificial Intelligence Study. <i>JMIR Medical Informatics</i> , 2022, 24, e28036.	2.6	7
50	Inherent bioelectrical parameters of hundreds of thousands of single leukocytes based on impedance flow cytometry. <i>Cytometry Part A: the Journal of the International Society for Analytical Cytology</i> , 2022, 101, 630-638.	1.5	7
51	Development of perfusion-based microbio reactor platform capable of providing tunable dynamic compressive loading to 3-D cell culture construct: Demonstration study of the effect of compressive stimulations on articular chondrocyte functions. <i>Sensors and Actuators B: Chemical</i> , 2013, 176, 86-96.	7.8	6
52	The effect of operating conditions on the optically induced electrokinetic (OEK)-based manipulation of magnetic microbeads in a microfluidic system. <i>Sensors and Actuators B: Chemical</i> , 2019, 296, 126610.	7.8	6
53	Comparison of narcotic pain control between stereotactic electrocorticography and subdural grid implantation. <i>Epilepsy and Behavior</i> , 2020, 103, 106843.	1.7	6
54	Definitive concurrent chemoradiotherapy with paclitaxel plus carboplatin is superior to cisplatin plus 5-fluorouracil in patients with inoperable esophageal squamous cell carcinoma using retrospective, real-world evidence. <i>Cancer Medicine</i> , 2021, 10, 8300-8309.	2.8	6

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55	High- $\beta$ GdTi <sub>x</sub> O <sub>y</sub> sensing membrane-based electrolyte-insulator-semiconductor with magnetic nanoparticles as enzyme carriers for protein contamination-free glucose biosensing. <i>Biosensors and Bioelectronics</i> , 2013, 47, 99-105.	10.1	5
56	Development of a two-step nucleic acid amplification test for accurate diagnosis of the <i>Mycobacterium tuberculosis</i> complex. <i>Scientific Reports</i> , 2021, 11, 5750.	3.3	5
57	The Instrumentation of a Microfluidic Analyzer Enabling the Characterization of the Specific Membrane Capacitance, Cytoplasm Conductivity, and Instantaneous Young's Modulus of Single Cells. <i>International Journal of Molecular Sciences</i> , 2017, 18, 1158.	4.1	4
58	Mechanical property characterization of hundreds of single nuclei based on microfluidic constriction channel. <i>Cytometry Part A: the Journal of the International Society for Analytical Cytology</i> , 2018, 93, 822-828.	1.5	4
59	An integrated actuating and sensing system for light-addressable potentiometric sensor (LAPS) and light-actuated AC electroosmosis (LACE) operation. <i>Biomicrofluidics</i> , 2021, 15, 024109.	2.4	3
60	Improvement of Background Solution for Optically Induced Dielectrophoresis-Based Cell Manipulation in a Microfluidic System. <i>Frontiers in Bioengineering and Biotechnology</i> , 2021, 9, 759205.	4.1	3
61	An Integrated Optical Sensor for Online Monitoring of Lactate Concentration. , 0, , .		2
62	Microbioreactors for Cartilage Tissue Engineering. <i>Methods in Molecular Biology</i> , 2015, 1340, 235-244.	0.9	2
63	Novel Toilet Paper-Based Point-Of-Care Test for the Rapid Detection of Fecal Occult Blood: Instrument Validation Study. <i>Journal of Medical Internet Research</i> , 2020, 22, e20261.	4.3	2
64	Classification of White Blood Cells Based on Cell Diameter, Specific Membrane Capacitance and Cytoplasmic Conductivity Leveraging Microfluidic Constriction Channel. , 2021, , .		1
65	A novel flash-ion-sensitive field-effect transistor (FISFET) with HfO <sub>2</sub> /Gd <sub>2</sub> O <sub>3</sub> (Gd) nano-crystal/SiO <sub>2</sub> sensing membranes under super nernstian phenomenon for pH and urea detection. , 2009, , .		0
66	Magnetic Beads Actuating and Sensing by Light Addressability. <i>Proceedings (mdpi)</i> , 2018, 2, .	0.2	0