

Chih-Ting Lin

List of Publications by Year in descending order

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Version: 2024-02-01

111
papers

1,524
citations

361296

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h-index

345118

36
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112
all docs

112
docs citations

112
times ranked

2124
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Review of Field-Effect Transistor Biosensing: Devices and Clinical Applications. ECS Journal of Solid State Science and Technology, 2018, 7, Q3196-Q3207. | 0.9 | 201 |
| 2 | PDMS-based opto-fluidic micro flow cytometer with two-color, multi-angle fluorescence detection capability using PIN photodiodes. Sensors and Actuators B: Chemical, 2004, 98, 356-367. | 4.0 | 176 |
| 3 | A Self-Powered CMOS Reconfigurable Multi-Sensor SoC for Biomedical Applications. IEEE Journal of Solid-State Circuits, 2014, 49, 851-866. | 3.5 | 108 |
| 4 | Self-Contained, Biomolecular Motor-Driven Protein Sorting and Concentrating in an Ultrasensitive Microfluidic Chip. Nano Letters, 2008, 8, 1041-1046. | 4.5 | 104 |
| 5 | Review of Integrated Optical Biosensors for Point-of-Care Applications. Biosensors, 2020, 10, 209. | 2.3 | 88 |
| 6 | Efficient Designs for Powering Microscale Devices with Nanoscale Biomolecular Motors. Small, 2006, 2, 281-287. | 5.2 | 52 |
| 7 | Improving sensitivity of a miniaturized label-free electrochemical biosensor using zigzag electrodes. Biosensors and Bioelectronics, 2018, 103, 130-137. | 5.3 | 49 |
| 8 | A High Performance Doppler Interferometer for Advanced Optical Storage Systems. Japanese Journal of Applied Physics, 1999, 38, 1730-1741. | 0.8 | 47 |
| 9 | A CMOS wireless biomolecular sensing system-on-chip based on polysilicon nanowire technology. Lab on A Chip, 2013, 13, 4451. | 3.1 | 38 |
| 10 | A microfluidic device integrating dual CMOS polysilicon nanowire sensors for on-chip whole blood processing and simultaneous detection of multiple analytes. Lab on A Chip, 2016, 16, 3105-3113. | 3.1 | 36 |
| 11 | Statins, HMG-CoA Reductase Inhibitors, Improve Neovascularization by Increasing the Expression Density of CXCR4 in Endothelial Progenitor Cells. PLoS ONE, 2015, 10, e0136405. | 1.1 | 33 |
| 12 | A CMOS Cantilever-Based Label-Free DNA SoC With Improved Sensitivity for Hepatitis B Virus Detection. IEEE Transactions on Biomedical Circuits and Systems, 2013, 7, 820-831. | 2.7 | 30 |
| 13 | A fully integrated wireless CMOS microcantilever lab chip for detection of DNA from Hepatitis B virus (HBV). Sensors and Actuators B: Chemical, 2013, 181, 867-873. | 4.0 | 26 |
| 14 | An enhancement of high-k/oxide stacked dielectric structure for silicon-based multi-nanowire biosensor in cardiac troponin I detection. Sensors and Actuators B: Chemical, 2015, 218, 303-309. | 4.0 | 25 |
| 15 | Enhancement of carrier mobility in all-inkjet-printed organic thin-film transistors using a blend of poly(3-hexylthiophene) and carbon nanoparticles. Thin Solid Films, 2011, 519, 8008-8012. | 0.8 | 24 |
| 16 | An incremental double-layer capacitance of a planar nano gap and its application in cardiac-troponin T detection. Biosensors and Bioelectronics, 2016, 79, 636-643. | 5.3 | 23 |
| 17 | Statistical properties of agent-based models in markets with continuous double auction mechanism. Physica A: Statistical Mechanics and Its Applications, 2010, 389, 1699-1707. | 1.2 | 21 |
| 18 | A low sample volume particle separation device with electrokinetic pumping based on circular travelling-wave electroosmosis. Lab on A Chip, 2013, 13, 3082. | 3.1 | 21 |

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|----|--|-----|-----------|
| 19 | Electrochemical biosensor with electrokinetics-assisted molecular trapping for enhancing C-reactive protein detection. <i>Biosensors and Bioelectronics</i> , 2022, 210, 114338. | 5.3 | 21 |
| 20 | A Portable System to Monitor Saliva Conductivity for Dehydration Diagnosis and Kidney Healthcare. <i>Scientific Reports</i> , 2019, 9, 14771. | 1.6 | 20 |
| 21 | A Room-Temperature Operation Formaldehyde Sensing Material Printed Using Blends of Reduced Graphene Oxide and Poly(methyl methacrylate). <i>Sensors</i> , 2015, 15, 28842-28853. | 2.1 | 18 |
| 22 | High-Precision Ultrasonic Ranging System Platform Based on Peak-Detected Self-Interference Technique. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2011, 60, 3775-3780. | 2.4 | 17 |
| 23 | A Low-Power CMOS Microfluidic Pump Based on Travelling-Wave Electroosmosis for Diluted Serum Pumping. <i>Scientific Reports</i> , 2019, 9, 14794. | 1.6 | 17 |
| 24 | Inkjet-Printed Organic Field-Effect Transistor by Using Composite Semiconductor Material of Carbon Nanoparticles and Poly(3-Hexylthiophene). <i>Journal of Nanotechnology</i> , 2011, 2011, 1-7. | 1.5 | 14 |
| 25 | A Machine-Learning Assisted Sensor for Chemo-Physical Dual Sensing Based on Ion-Sensitive Field-Effect Transistor Architecture. <i>IEEE Sensors Journal</i> , 2019, 19, 9983-9990. | 2.4 | 14 |
| 26 | A Printable Humidity Sensing Material Based on Conductive Polymer and Nanoparticles Composites. <i>Japanese Journal of Applied Physics</i> , 2013, 52, 05DA08. | 0.8 | 13 |
| 27 | A low-damage plasma surface modification method of stacked graphene bilayers for configurable wettability and electrical properties. <i>Nanotechnology</i> , 2019, 30, 245709. | 1.3 | 13 |
| 28 | Photoconductive Piezoelectric Polymer Made From a Composite of P(VDF-TrFE) and TiOPc. <i>Ferroelectrics</i> , 2013, 446, 9-17. | 0.3 | 11 |
| 29 | Effects of π -electron in humidity sensing of artificially stacked graphene bilayers modified with carboxyl and hydroxyl groups. <i>Sensors and Actuators B: Chemical</i> , 2019, 301, 127020. | 4.0 | 10 |
| 30 | A Fully Integrated Humidity Sensor System-on-Chip Fabricated by Micro-Stamping Technology. <i>Sensors</i> , 2012, 12, 11592-11600. | 2.1 | 9 |
| 31 | A fully integrated hepatitis B virus DNA detection SoC based on monolithic polysilicon nanowire CMOS process. , 2012, , . | | 9 |
| 32 | A frequency-control particle separation device based on resultant effects of electroosmosis and dielectrophoresis. <i>Applied Physics Letters</i> , 2016, 109, 053701. | 1.5 | 9 |
| 33 | Pre-Clinical Tests of an Integrated CMOS Biomolecular Sensor for Cardiac Diseases Diagnosis. <i>Sensors</i> , 2017, 17, 2733. | 2.1 | 9 |
| 34 | Review "Advancements of Nanoscale Structures and Materials in Impedimetric Biosensing Technologies. <i>ECS Journal of Solid State Science and Technology</i> , 2020, 9, 115027. | 0.9 | 9 |
| 35 | Emerging Electrical Biosensors for Detecting Pathogens and Antimicrobial Susceptibility Tests. <i>Current Organic Chemistry</i> , 2014, 18, 165-172. | 0.9 | 9 |
| 36 | Low-Power and High-Sensitivity Humidity Sensor Using Fe-Al-Polyaniline Blends. <i>IEEE Sensors Journal</i> , 2010, 10, 1142-1146. | 2.4 | 8 |

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|----|--|-----|-----------|
| 37 | A Low-Power Integrated Humidity CMOS Sensor by Printing-on-Chip Technology. <i>Sensors</i> , 2014, 14, 9247-9255. | 2.1 | 8 |
| 38 | Sensitivity improvement of a miniaturized label-free electrochemical impedance biosensor by electrode edge effect. <i>Journal of Micro/ Nanolithography, MEMS, and MOEMS</i> , 2014, 13, 033019. | 1.0 | 8 |
| 39 | A Self-Sustained Wireless Multi-Sensor Platform Integrated with Printable Organic Sensors for Indoor Environmental Monitoring. <i>Sensors</i> , 2017, 17, 715. | 2.1 | 8 |
| 40 | Cloud-Based Artificial Intelligence System for Large-Scale Arrhythmia Screening. <i>Computer</i> , 2019, 52, 40-51. | 1.2 | 8 |
| 41 | Heart Rhythm Complexity Predicts Long-Term Cardiovascular Outcomes in Peritoneal Dialysis Patients: A Prospective Cohort Study. <i>Journal of the American Heart Association</i> , 2020, 9, e013036. | 1.6 | 8 |
| 42 | Sensing Characteristic Enhancement of CMOS-Based ISFETs With Three-Dimensional Extended- Gate Architecture. <i>IEEE Sensors Journal</i> , 2021, 21, 8831-8838. | 2.4 | 8 |
| 43 | An implementation of light-weight compression algorithm for wireless sensor network technology in structure health monitoring. , 2014, , . | | 7 |
| 44 | A Smart CMOS Assay SoC for Rapid Blood Screening Test of Risk Prediction. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2016, 9, 1-1. | 2.7 | 7 |
| 45 | Effects of pulsed-radiofrequency neuromodulation on the rat with overactive bladder. <i>Neurourology and Urodynamics</i> , 2017, 36, 1734-1741. | 0.8 | 7 |
| 46 | Predicting the stochastic guiding of kinesin-driven microtubules in microfabricated tracks: A statistical-mechanics-based modeling approach. <i>Physical Review E</i> , 2010, 81, 011919. | 0.8 | 6 |
| 47 | The association between heart rhythm complexity and the severity of abdominal aorta calcification in peritoneal dialysis patients. <i>Scientific Reports</i> , 2018, 8, 15627. | 1.6 | 6 |
| 48 | New Tools for Structural Testing: Piezoelectric Impact Hammers and Acceleration Rate Sensors. <i>Journal of Guidance, Control, and Dynamics</i> , 1998, 21, 692-697. | 1.6 | 5 |
| 49 | Towards transparent electronics: fabrication of an organic transistor with a wide bandgap polymer. <i>Journal of Materials Chemistry</i> , 2012, 22, 57-59. | 6.7 | 5 |
| 50 | GPS-Based Real-Time Guidance Information System for Marine Pier Construction. <i>Journal of Surveying Engineering, - ASCE</i> , 2013, 139, 84-94. | 1.0 | 5 |
| 51 | 21.6 A smart CMOS assay SoC for rapid blood screening test of risk prediction. , 2015, , . | | 5 |
| 52 | An in-situ filtering pump for particle-sample filtration based on low-voltage electrokinetic mechanism. <i>Sensors and Actuators B: Chemical</i> , 2017, 238, 809-816. | 4.0 | 5 |
| 53 | Web-based real time bridge scour monitoring system for disaster management. <i>Baltic Journal of Road and Bridge Engineering</i> , 2014, 9, 17-25. | 0.4 | 5 |
| 54 | Development of a photoconductive piezoelectronic material from composite of P(VDF-TrFE) and TiOPc. , 2012, , . | | 4 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 55 | Adjustable threshold-voltage in all-inkjet-printed organic thin film transistor using double-layer dielectric structures. <i>Thin Solid Films</i> , 2013, 548, 576-580. | 0.8 | 4 |
| 56 | A CMOS Based Polysilicon Nanowire Biosensor Platform for Different Biological Targets. <i>Procedia Engineering</i> , 2014, 87, 340-343. | 1.2 | 4 |
| 57 | A printable conductive polymer CO ₂ sensor with high selectivity to humidity. , 2017, , . | | 4 |
| 58 | A pH/Light Dual-Modal Sensing ISFET Assisted by Artificial Neural Networks. <i>ECS Transactions</i> , 2019, 89, 31-37. | 0.3 | 4 |
| 59 | A Portable Biodevice to Monitor Salivary Conductivity for the Rapid Assessment of Fluid Status. <i>Journal of Personalized Medicine</i> , 2021, 11, 577. | 1.1 | 4 |
| 60 | Detection of Polystyrene Beads Concentration Using an SOI-MEMS Differential Rotational Thermal Piezoresistive Resonator for Future Label-Free Biosensing Applications. <i>IEEE Sensors Journal</i> , 2021, 21, 21400-21409. | 2.4 | 4 |
| 61 | A statistical nanomechanism of biomolecular patterning actuated by surface potential. <i>Journal of Applied Physics</i> , 2011, 109, . | 1.1 | 3 |
| 62 | Silicon-based Multi-nanowire Biosensor with High-k Dielectric and Stacked Oxide Sensing Membrane for Cardiac Troponin I Detection. <i>Procedia Engineering</i> , 2014, 87, 648-651. | 1.2 | 3 |
| 63 | A capacitive immunosensor using on-chip electrolytic pumping and magnetic washing techniques for point-of-care applications. , 2014, , . | | 3 |
| 64 | Data on a new sensitivity-improved miniaturized label-free electrochemical biosensor. <i>Data in Brief</i> , 2018, 17, 1288-1294. | 0.5 | 3 |
| 65 | A Low-Power PEDOT: PSS/EB-PANI for CO ₂ Sensing Material Integrated With a Self-Powered Sensing Platform. <i>IEEE Sensors Journal</i> , 2020, 20, 55-61. | 2.4 | 3 |
| 66 | Surface-Plasmon-Resonance Based Narrow-Bandwidth Infrared Carbon Monoxide Detection System. <i>IEEE Sensors Journal</i> , 2022, 22, 9803-9810. | 2.4 | 3 |
| 67 | Review-Hysteresis in Carbon Nano-Structure Field Effect Transistor. <i>Micromachines</i> , 2022, 13, 509. | 1.4 | 3 |
| 68 | Quality assessment for LiDAR point cloud registration using in-situ conjugate features. , 2011, , . | | 2 |
| 69 | Percolation of Carbon Nanoparticles in Poly(3-Hexylthiophene) Enhancing Carrier Mobility in Organic Thin Film Transistors. <i>Advances in Materials Science and Engineering</i> , 2014, 2014, 1-10. | 1.0 | 2 |
| 70 | Self-Sustain Wireless Sensor Module. , 2014, , . | | 2 |
| 71 | A photo-sensitive piezoelectric composite material of poly(vinylidene fluoride-trifluoroethylene) and titanium oxide phthalocyanine. <i>Materials Chemistry and Physics</i> , 2015, 149-150, 254-260. | 2.0 | 2 |
| 72 | Glycated Hemoglobin Detection in Clinical Blood Samples by Using CMOS Poly-silicon Sub-micron Wire Biosensor. <i>Procedia Engineering</i> , 2016, 168, 121-124. | 1.2 | 2 |

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|----|---|-----|-----------|
| 73 | Use Support Vector Machine (SVM) to estimate gas concentration in mixture condition. , 2017, , . | | 2 |
| 74 | CMOS-based biomolecular diagnosis platform. , 2017, , . | | 2 |
| 75 | Temperature Effect of Low-Damage Plasma for Nitrogen-Modification of Graphene. ECS Journal of Solid State Science and Technology, 2020, 9, 121007. | 0.9 | 2 |
| 76 | CMOS ISFETs With 3D-Truncated Sensing Structure Resistant to Scaling Attenuation and Trapped Charge-Induced Offset. IEEE Sensors Journal, 2021, 21, 27282-27289. | 2.4 | 2 |
| 77 | The configurable-biomolecular nano pattern controlled by surface potential. Microelectronic Engineering, 2011, 88, 1785-1788. | 1.1 | 1 |
| 78 | An inkjet-printed humidity sensor based on SiO ₂ nano particle blended PEDOT:PSS films. , 2012, , . | | 1 |
| 79 | On-chip biological patterning controlled by electrical potential. Microelectronic Engineering, 2012, 98, 711-714. | 1.1 | 1 |
| 80 | Sub-fM DNA sensitivity by self-aligned maskless thin-film transistor-based SoC bioelectronics. , 2012, , . | | 1 |
| 81 | Low-cost and ultra-sensitive poly-Si nanowire biosensor for Hepatitis B Virus (HBV) DNA detection. , 2012, , . | | 1 |
| 82 | Isothermal real-time polymerase chain reaction detection of Herpes Simplex Virus Type 1 on a light-actuated digital microfluidics platform. , 2013, , . | | 1 |
| 83 | On the sensitivity improvement of a miniaturized label-free electrochemical impedance biosensor. , 2014, , . | | 1 |
| 84 | A sub-micron CMOS-based ISFET array for biomolecular sensing. , 2016, , . | | 1 |
| 85 | Effects of silicon Interface and frequency dependence in solution-processed high-K poly(vinylidene fluoride) on the performance of Si/SiO ₂ /poly(vinylidene fluoride)/SiO ₂ /Si MOSFETs. IEEE Transactions on Electron Devices, 2017, 62, 75-80. | 0.8 | 1 |
| 86 | An in-Situ Impedance-Based Whole Blood Anticoagulation Diagnosis Technology. ECS Transactions, 2019, 89, 73-80. | 0.3 | 1 |
| 87 | An Ion-Sensitive Field-Effect Transistor with Three-Dimensional Extended-Gate Architecture. ECS Transactions, 2019, 89, 81-86. | 0.3 | 1 |
| 88 | Field-effect pump: liquid dielectrophoresis along a virtual microchannel with source-gate-drain electric fields. Lab on A Chip, 2021, 21, 2372-2382. | 3.1 | 1 |
| 89 | An Interface-Induced Dielectric Properties Degradation in Heterogeneous Stacked Device With P(VDF-TrFE)-Based Ferroelectric Polymers. IEEE Transactions on Electron Devices, 2021, 68, 739-745. | 1.6 | 1 |
| 90 | Poly-Silicon Nanowire FET Chemical Sensor. , 2010, , . | | 1 |

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| 91 | Polysilicon nanowire chemical sensor based on CMOS standard process. , 2008, , . | | 0 |
| 92 | Nanomechanics of Biomolecular Motor Proteins in Micromachined Structures. , 2010, , . | | 0 |
| 93 | The heterogeneous sensor system on chip. , 2012, , . | | 0 |
| 94 | A sensor-merged oscillator-based readout circuit for pizeo-resistive sensing applications. , 2012, , . | | 0 |
| 95 | Development of a Photoresponsive and Electrostrictive Material from P(VDF-TrFE-CFE) and TiOPc Composite. Materials Research Society Symposia Proceedings, 2014, 1659, 69-74. | 0.1 | 0 |
| 96 | A silicon nanowire-based bio-sensing system with digitized outputs for acute myocardial infraction diagnosis. , 2014, , . | | 0 |
| 97 | A study of an energy harvesting device based on photosystem-II protein complex. , 2014, , . | | 0 |
| 98 | A Degradation Preventing Method for the Organic Material in Gas Sensing Application by Using CMOS Submicron Wire Sensor. Procedia Engineering, 2016, 168, 1743-1746. | 1.2 | 0 |
| 99 | Investigation of frequency/thickness dependent configurable dielectric properties on P(VDF-TrFE-CTFE)-MIS structures. , 2016, , . | | 0 |
| 100 | A nano-gap biosensor using nano-patterned conductive molecule for cTnT detection. , 2016, , . | | 0 |
| 101 | Impedance spectroscopy for microfluidic particle-analyzing device with spatial-coplanar electrode design. , 2017, , . | | 0 |
| 102 | Ionic concentration sensing via nitrogen modified graphene through low-damage plasma treatment. , 2019, , . | | 0 |
| 103 | High Efficient Synchronization-On-Demand Protocol of IEEE802.15.4 Wireless Sesnor Network for Construction Monitoring. , 2011, , . | | 0 |
| 104 | Implant intelligent gene to automation: An interview with ITRI MSL Deputy General Director. International Journal of Automation and Smart Technology, 2011, 1, 13-17. | 0.4 | 0 |
| 105 | High Efficient Synchronization-on-demand Protocol of IEEE 802.15.4 Wireless Sensor Network for Construction Monitoring. International Journal of Automation and Smart Technology, 2012, 2, 103-109. | 0.4 | 0 |
| 106 | An Ion-Sensitive Field-Effect Transistor with Three-Dimensional Extended-Gate Architecture. ECS Meeting Abstracts, 2019, , . | 0.0 | 0 |
| 107 | A pH/Light Dual-Modal Sensing Isfet Assisted By Artificial Neural Networks. ECS Meeting Abstracts, 2019, , . | 0.0 | 0 |
| 108 | An in-Situ Impedance-Based Whole Blood Anticoagulation Diagnosis Technology. ECS Meeting Abstracts, 2019, , . | 0.0 | 0 |

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|-----|---|-----|-----------|
| 109 | Prefaceâ€”JSS Focus Issue on Solid-State Materials and Devices for Biological and Medical Applications. ECS Journal of Solid State Science and Technology, 2020, 9, 110001. | 0.9 | 0 |
| 110 | Effect of Electrons Trapping/De-Trapping at P(VDF-TrFE)/SiO ₂ Interface in Metal/Ferroelectric/Oxide/Semiconductor Structure With Ultra-Thin SiO ₂ By Anodization. IEEE Nanotechnology Magazine, 2021, 20, 928-932. | 1.1 | 0 |
| 111 | Electrical Measurements to Detect Liquid Concentration. IEEE Transactions on Semiconductor Manufacturing, 2022, 35, 11-15. | 1.4 | 0 |