

Ming-Han Liao

List of Publications by Year in descending order

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| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | Sub-60mV-swing negative-capacitance FinFET without hysteresis. , 2015, , . | | 163 |
| 2 | Physical thickness 1.x nm ferroelectric HfZrOx negative capacitance FETs. , 2016, , . | | 105 |
| 3 | Non-Volatile Ferroelectric FETs Using 5-nm Hf _{0.5} Zr _{0.5} O ₂ With High Data Retention and Read Endurance for 1T Memory Applications. IEEE Electron Device Letters, 2019, 40, 399-402. | 3.9 | 83 |
| 4 | Ferroelectric HfZrO ₂ With Electrode Engineering and Stimulation Schemes as Symmetric Analog Synaptic Weight Element for Deep Neural Network Training. IEEE Transactions on Electron Devices, 2020, 67, 4201-4207. | 3.0 | 33 |
| 5 | Optoelectronic properties of Cu ₃ N thin films deposited by reactive magnetron sputtering and its diode rectification characteristics. Journal of Alloys and Compounds, 2019, 789, 428-434. | 5.5 | 29 |
| 6 | Planarization, Fabrication, and Characterization of Three-Dimensional Magnetic Field Sensors. IEEE Nanotechnology Magazine, 2018, 17, 11-25. | 2.0 | 19 |
| 7 | Systematic Investigation of Self-Heating Effect on CMOS Logic Transistors From 20 to 5 nm Technology Nodes by Experimental Thermoelectric Measurements and Finite Element Modeling. IEEE Transactions on Electron Devices, 2017, 64, 646-648. | 3.0 | 17 |
| 8 | Ferroelectric HfZrO _x FETs on SOI Substrate With Reverse-DIBL (Drain-Induced Barrier) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 500 2018, 6, 900-904. | 2.1 | 14 |
| 9 | Synthesis and characterization of n-type NiO:Al thin films for fabrication of p-n NiO homojunctions. Journal Physics D: Applied Physics, 2018, 51, 105109. | 2.8 | 13 |
| 10 | Performance enhancement for the triboelectric energy harvester by using interfacial micro-dome array structures. Applied Physics Letters, 2017, 110, . | 3.3 | 11 |
| 11 | p-type semi-transparent conductive NiO films with high deposition rate produced by superimposed high power impulse magnetron sputtering. Ceramics International, 2020, 46, 27695-27701. | 4.8 | 10 |
| 12 | Thickness dependence of electrical conductivity and thermo-electric power of Bi _{2.0} Te _{2.7} Se _{0.3} /Bi _{0.4} Te _{3.0} Sb _{1.6} thermo-electric devices. AIP Advances, 2018, 8, 015020. | 1.3 | 8 |
| 13 | Comparison of microstructures and magnetic properties in FePt alloy films deposited by direct current magnetron sputtering and high power impulse magnetron sputtering. Journal of Alloys and Compounds, 2019, 803, 341-347. | 5.5 | 8 |
| 14 | Bi-directional Sub-60mV/dec, Hysteresis-Free, Reducing Onset Voltage and High Speed Response of Ferroelectric-AntiFerroelectric Hf _{0.25} Zr _{0.75} O ₂ Negative Capacitance FETs. , 2019, , . | | 8 |
| 15 | Multi-Ferroc Properties on BiFeO ₃ /BaTiO ₃ Multi-Layer Thin-Film Structures with the Strong Magneto-Electric Effect for the Application of Magneto-Electric Devices. Coatings, 2021, 11, 66. | 2.6 | 8 |
| 16 | Additional Nitrogen Ion-Implantation Treatment in STI to Relax the Intrinsic Compressive Stress for n-MOSFETs. IEEE Transactions on Electron Devices, 2012, 59, 2033-2036. | 3.0 | 7 |
| 17 | The Demonstration of Carbon Nanotubes (CNTs) as Flip-Chip Connections in 3-D Integrated Circuits With an Ultralow Connection Resistance. IEEE Transactions on Electron Devices, 2020, 67, 2205-2207. | 3.0 | 7 |
| 18 | The demonstration of promising Ge n-type multi-gate-field-effect transistors with the magnetic FePt metal gate scheme. Applied Physics Letters, 2015, 107, . | 3.3 | 6 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 19 | The Demonstration of High-Performance Multilayer BaTiO ₃ /BiFeO ₃ Stack MIM Capacitors. IEEE Transactions on Electron Devices, 2018, , 1-5. | 3.0 | 6 |
| 20 | Influence of Sputtering Power on the Electrical Properties of In-Sn-Zn Oxide Thin Films Deposited by High Power Impulse Magnetron Sputtering. Coatings, 2019, 9, 715. | 2.6 | 6 |
| 21 | The Development of a Dynamic Model to Investigate the Dielectric Layer Thickness Effect for the Device Performance in Triboelectric Nanogenerators. IEEE Transactions on Electron Devices, 2019, 66, 4478-4480. | 3.0 | 5 |
| 22 | Ferroelectric HfZrO ₂ FETs for steep switch onset. Microelectronic Engineering, 2019, 215, 110991. | 2.4 | 5 |
| 23 | The Demonstration of High-Quality Carbon Nanotubes as Through-Silicon Vias (TSVs) for Three-Dimensional Connection Stacking and Power-Via Technology. IEEE Transactions on Electron Devices, 2022, 69, 1600-1603. | 3.0 | 5 |
| 24 | In-Sn-Zn Oxide Nanocomposite Films with Enhanced Electrical Properties Deposited by High-Power Impulse Magnetron Sputtering. Nanomaterials, 2021, 11, 2016. | 4.1 | 4 |
| 25 | The Investigation for Thickness-Dependent Electrical Performance on BaTiO ₃ /BiFeO ₃ Bilayer Ferromagnetic Capacitors. IEEE Transactions on Electron Devices, 2020, 67, 3417-3423. | 3.0 | 3 |
| 26 | The real demonstration of High-Quality Carbon Nano-Tubes (CNTs) as the electrical connection for the potential application in a vertical 3D integrated technology. , 2020, , . | | 3 |
| 27 | Experimental Insights of Reverse Switching Charge for Antiferroelectric Hf _{0.5} Zr _{0.5} O ₂ . IEEE Electron Device Letters, 2022, 43, 1559-1562. | 3.9 | 3 |
| 28 | The Demonstration of Dislocation-Stress Memorization Technique Stressor on Si n-FinFETs. IEEE Nanotechnology Magazine, 2015, 14, 657-659. | 2.0 | 2 |
| 29 | Double Layers Omega FETs with Ferroelectric HfZrO ₂ for One-Transistor Memory. , 2020, , . | | 2 |
| 30 | Multi-Layer Chips on Wafer Stacking Technologies with Carbon Nano-Tubes as Through-Silicon Vias and its potential applications for Power-Via technologies. , 2022, , . | | 2 |
| 31 | The investigation of self-heating effect on Si _{1-x} Ge _x FinFETs with different device structures, Ge concentration, and operated voltages. AIP Advances, 2017, 7, 055105. | 1.3 | 1 |
| 32 | Ferroelectric Characteristics of Ultra-thin Hf _{1-x} Zr _x O ₂ Gate Stack and 1T Memory Operation Applications. , 2018, , . | | 1 |
| 33 | The Demonstration of 3-D Bi _{2.0} Te _{2.7} Se _{0.3} /Bi _{0.4} Te _{3.0} Sb _{1.6} Thermoelectric Devices by Ionized Sputter System. IEEE Transactions on Electron Devices, 2020, 67, 406-408. | | |
| 34 | Negative Schottky barrier height and surface inhomogeneity in n-silicon M ¹ S structures. AIP Advances, 2022, 12, . | 1.3 | 1 |
| 35 | The Optimization of SiGe Hetero-Structure Thin-Film Solar Cell by the Theoretical Calculation and Quantitative Analysis. , 2012, , . | | 0 |
| 36 | The chemical vapor deposition chamber design to improve the thin film deposition quality in both 12" (300 mm) and 18" (450 mm) wafers with the development of 3D chamber modeling and experimental visual technique. , 2013, , . | | 0 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 37 | Effects of array type of dummy active diffused region and gate geometries on narrow NMOSFETs with SiC S/D stressors. , 2014, , . | | 0 |
| 38 | The investigation of the diameter dimension effect on the Si nano-tube transistors. AIP Advances, 2016, 6, 035021. | 1.3 | 0 |
| 39 | Accompanied arrangement effect of stretched gate width and dummy diffusion region on strained silicon PMOSFETs. , 2016, , . | | 0 |