Ling-Feng Mao

List of Publications by Year in descending order

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	516215	552369
1,008	16	26
citations	h-index	g-index
105	105	050
125	125	850
docs citations	times ranked	citing authors
	citations 125	1,008 16 citations h-index 125 125

#	Article	IF	CITATIONS
1	Frequency Selective Surfaces: A Review. Applied Sciences (Switzerland), 2018, 8, 1689.	1.3	178
2	Recent advancements in surface plasmon polaritons-plasmonics in subwavelength structures in microwave and terahertz regimes. Digital Communications and Networks, 2018, 4, 244-257.	2.7	51
3	DESIGN OF PLANAR DUAL AND TRIPLE NARROW-BAND BANDSTOP FILTERS WITH INDEPENDENTLY CONTROLLED STOPBANDS AND IMPROVED SPURIOUS RESPONSE. Progress in Electromagnetics Research, 2012, 131, 259-274.	1.6	34
4	Temperature dependence of the tunneling current in metal-oxide-semiconductor devices due to the coupling between the longitudinal and transverse components of the electron thermal energy. Applied Physics Letters, 2007, 90, 183511.	1.5	31
5	Physical Modeling of Activation Energy in Organic Semiconductor Devices based on Energy and Momentum Conservations. Scientific Reports, 2016, 6, 24777.	1.6	31
6	Physical unclonable function: architectures, applications and challenges for dependable security. IET Circuits, Devices and Systems, 2020, 14, 407-424.	0.9	31
7	The Effects of the Injection-Channel Velocity on the Gate Leakage Current of Nanoscale MOSFETs. IEEE Electron Device Letters, 2007, 28, 161-163.	2.2	26
8	The Gate Leakage Current in Graphene Field-Effect Transistor. IEEE Electron Device Letters, 2008, 29, 1047-1049.	2.2	24
9	Leakage Power Reduction Techniques of 55 nm SRAM Cells. IETE Technical Review (Institution of) Tj ETQq1 1 0.3	784314 rg 2.1	BT 10verlock
10	A Compact Reconfigurable Bandstop Resonator Using Defected Ground Structure on Coplanar Waveguide. IEEE Antennas and Wireless Propagation Letters, 2012, 11, 457-459.	2.4	21
11	Thickness measurements for ultrathin-film insulator metal–oxide–semiconductor structures using Fowler–Nordheim tunneling current oscillations. Journal of Applied Physics, 2000, 88, 6560-6563.	1.1	20
12	A NOVEL MINIATURIZED DUAL-BAND BANDSTOP FILTER USING DUAL-PLANE DEFECTED STRUCTURES. Progress in Electromagnetics Research, 2013, 134, 397-417.	1.6	20
13	Quantum capacitance of the armchair-edge graphene nanoribbon. Pramana - Journal of Physics, 2013, 81, 309-317.	0.9	19
14	A novel combinatorial triangleâ€ŧype AMC structure for RCS reduction. Microwave and Optical Technology Letters, 2015, 57, 2728-2732.	0.9	18
15	Miniaturised frequency selective surface based on fractal arrays with square slots for enhanced bandwidth. IET Microwaves, Antennas and Propagation, 2019, 13, 1811-1819.	0.7	17
16	Numerical analysis for root-mean-square roughness of SiO2/Si interface on direct tunneling current in ultrathin MOSFETs. Solid-State Electronics, 2001, 45, 531-534.	0.8	16
17	Integrated SRAM compiler with clamping diode to reduce leakage and dynamic power in nano-CMOS process. Micro and Nano Letters, 2012, 7, 171.	0.6	16
18	Study of Fowler–Nordheim tunneling current oscillations of thin insulator MOS structure by wave interference method. Solid-State Electronics, 2000, 44, 1501-1506.	0.8	15

#	Article	IF	CITATIONS
19	The effects of the in-plane momentum on the quantization of nanometer metal-oxide-semiconductor devices due to the difference between the effective masses of silicon and gate oxide. Applied Physics Letters, 2007, 91, 123519.	1.5	15
20	Finite size effects on the gate leakage current in graphene nanoribbon field-effect transistors. Nanotechnology, 2009, 20, 275203.	1.3	15
21	Enhanced Sparse Regularization Based on Logarithm Penalty and Its Application to Gearbox Compound Fault Diagnosis. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-12.	2.4	15
22	Physical Modeling of Gate-Controlled Schottky Barrier Lowering of Metal-Graphene Contacts in Top-Gated Graphene Field-Effect Transistors. Scientific Reports, 2015, 5, 18307.	1.6	13
23	Investigation of the Correlation Between Temperature and Enhancement of Electron Tunneling Current Through \$hbox{HfO}_{f 2}\$ Gate Stacks. IEEE Transactions on Electron Devices, 2008, 55, 782-788.	1.6	10
24	The quantum size effects on the surface potential of nanocrystalline silicon thin film transistors. Thin Solid Films, 2010, 518, 3396-3401.	0.8	10
25	Finite-Size Effects on Thermionic Emission in Metal–Graphene-Nanoribbon Contacts. IEEE Electron Device Letters, 2010, 31, 491-493.	2.2	10
26	A theoretical analysis of field emission from graphene nanoribbons. Carbon, 2011, 49, 2709-2714.	5.4	10
27	Miniaturized dual-band bandstop filter using defected microstrip structure and defected ground structure. , 2012, , .		10
28	The Current Collapse in AlGaN/GaN High-Electron Mobility Transistors Can Originate from the Energy Relaxation of Channel Electrons?. PLoS ONE, 2015, 10, e0128438.	1.1	10
29	Thermionic emission current in graphene-based electronic devices. Applied Physics A: Materials Science and Processing, 2019, 125, 1.	1.1	10
30	Quantum coupling and electrothermal effects on electron transport in high-electron mobility transistors. Pramana - Journal of Physics, 2019, 93, 1.	0.9	9
31	The effect of image potential on electron transmission and electric current in the direct tunneling regime of ultra-thin MOS structures. Microelectronics Reliability, 2001, 41, 927-931.	0.9	8
32	Modeling of temperature dependence of the leakage current through a hafnium silicate gate dielectric in a MOS device. Semiconductor Science and Technology, 2007, 22, 1203-1208.	1.0	8
33	A compact quad-band bandstop filter using dual-plane defected structures and open-loop resonators. IEICE Electronics Express, 2012, 9, 1630-1636.	0.3	8
34	Modeling of spectral shift in Raman spectroscopy, photo- and electro-luminescence induced by electric field tuning of graphene related electronic devices. Carbon, 2017, 119, 446-452.	5.4	8
35	Layer-dependent bandgap and electrical engineering of molybdenum disulfide. Journal of Physics and Chemistry of Solids, 2020, 139, 109331.	1.9	8
36	Electromagnetic spectrum chipless radio frequency identification: A review. Digital Communications and Networks, 2020, 6, 377-388.	2.7	8

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37	A DFT+U study about agglomeration of Au atoms on reduced surface of rutile TiO2 (110). Materials Chemistry and Physics, 2021, 271, 124944.	2.0	8
38	Effect of SiO2/Si interface roughness on gate current. Microelectronics Reliability, 2001, 41, 1903-1907.	0.9	7
39	Modeling the effects of the channel electron velocity on the channel surface potential of ballistic MOSFETs. Solid-State Electronics, 2008, 52, 186-189.	0.8	7
40	Effects of quantum coupling on the performance of metal-oxide-semiconductor field transistors. Pramana - Journal of Physics, 2009, 72, 407-414.	0.9	7
41	Effects of Channel Electron In-Plane Velocity on the Capacitance-Voltage Curve of MOS Devices. ETRI Journal, 2010, 32, 68-72.	1.2	7
42	A miniaturized dual-frequency Wilkinson power divider using planar artificial transmission lines. , 2010, , .		7
43	Anisotropic relaxation of a CuO/TiO ₂ surface under an electric field and its impact on visible light absorption: ab initio calculations. Physical Chemistry Chemical Physics, 2015, 17, 17880-17886.	1.3	7
44	Graphene-sandwiched silicon structures for greatly enhanced unpolarized light absorption. Optics Communications, 2015, 339, 47-52.	1.0	7
45	DFT Calculation about Oxygen Vacancy to Promote Adsorption of a CO Molecule on Single Auâ€6upported Titanium Dioxide. Physica Status Solidi (B): Basic Research, 2019, 256, 1800386.	0.7	7
46	Direct tunneling relaxation spectroscopy in ultra-thin gate oxide MOS structures. Solid-State Electronics, 2000, 44, 2021-2025.	0.8	6
47	A compact dual-mode BPF base on interdigital structure. , 2010, , .		6
48	Interface traps and quantum size effects on the retention time in nanoscale memory devices. Nanoscale Research Letters, 2013, 8, 369.	3.1	6
49	Quantum coupling effects on charging dynamics of nanocrystalline memory devices. Microelectronics Reliability, 2014, 54, 404-409.	0.9	6
50	Physical origins of the ideality factor of the current equation in Schottky junctions. Pramana - Journal of Physics, 2020, 94, 1.	0.9	6
51	Physical origin of kink in GaN HEMTs. Results in Physics, 2021, 30, 104894.	2.0	6
52	Stress-induced high-field gate leakage current in ultra-thin gate oxide. Solid-State Electronics, 2000, 44, 977-980.	0.8	5
53	Investigating the effects of the interface defects on the gate leakage current in MOSFETs. Applied Surface Science, 2008, 254, 6628-6632.	3.1	5
54	Energy distribution of channel electrons and its impacts onÂtheÂgate leakage current in graphene field-effect transistors. Applied Physics A: Materials Science and Processing, 2010, 98, 565-569.	1.1	5

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55	Mismatch of dielectric constants at the interface of nanometer metal-oxide-semiconductor devices with high-K gate dielectric impacts on the inversion charge density. Pramana - Journal of Physics, 2011, 76, 657-666.	0.9	5
56	Dot size effects of nanocrystalline germanium on charging dynamics of memory devices. Nanoscale Research Letters, 2013, 8, 21.	3.1	5
57	Current Reduction Caused by the Quantum Coupling of Hot Electrons in AlGaN/GaN Transistors. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1701035.	0.8	5
58	The effect of oxygen vacancy at CO oxidation on anatase (001)-supported single-Au catalyst. Materials Chemistry and Physics, 2020, 240, 122291.	2.0	5
59	Novel crestâ€trough shaped spoof surface plasmon polaritons for low pass filtering applications. Microwave and Optical Technology Letters, 2020, 62, 1533-1541.	0.9	5
60	Asplenium danxiaense sp.Ânov. (Aspleniaceae, Aspleniineae), a new tetraploid fern species from Guangdong, China, based on morphological and molecular data. European Journal of Taxonomy, 0, 798, 162-173.	0.6	5
61	The effect of transition region on the direct tunneling current and Fowler–Nordheim tunneling current oscillations in ultrathin MOS structures. Microelectronics Reliability, 2002, 42, 175-181.	0.9	4
62	Low frequency current noise in 2.5 nm MOSFET and fractal dimension of soft breakdown. Solid-State Electronics, 2003, 47, 1451-1456.	0.8	4
63	Interaction of oxygen vacancy and its impact on transmission coefficient in oxygenâ€deficient titanium dioxide: ⟨i⟩Ab initio⟨/i⟩ calculations. Physica Status Solidi (B): Basic Research, 2015, 252, 2735-2744.	0.7	4
64	A method to measure the distance among scatters and the scatters' diameter in artificial composite materials. Ultrasonics, 2016, 67, 70-75.	2.1	4
65	Impact of Energy Relaxation of Channel Electrons on Drain-Induced Barrier Lowering in Nano-Scale Si-Based MOSFETs. ETRI Journal, 2017, 39, 284-291.	1.2	4
66	Metal-substitution strategy to control the conductive path in titanium dioxide: ab initio calculations. European Physical Journal B, 2018 , 91 , 1 .	0.6	4
67	Physical Model of the Effects of Drift Velocity on Current Transport in PN Junctions under the Forward Electric Field. Silicon, 2020, 12, 1539-1545.	1.8	4
68	Numerical analysis for the effects of SiO2/Si interface roughness on quantum oscillations in ultrathin MOSFETs. Solid-State Electronics, 2001, 45, 773-776.	0.8	3
69	Effects of the size of silicon grain on the gate-leakage current in nanocrystalline silicon thin-film transistors. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2010, 28, 460-465.	0.6	3
70	A compact dual-frequency wilkinson power divider with open-ended stubs. , 2010, , .		3
71	Quantum size impacts on the threshold voltage in nanocrystalline silicon thin film transistors. Microelectronics Reliability, 2013, 53, 1886-1890.	0.9	3
72	First-principles study on defected titanium dioxide with the Zr substitution for improved reliability of the conduction path. EPJ Applied Physics, 2015, 70, 10103.	0.3	3

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73	Structure properties and electrical mechanisms of Si(001)/SiO 2 interface with varying Si layer thickness in nano-scale transistor. Current Applied Physics, 2018, 18, 1020-1025.	1.1	3
74	Electrochemical Modeling of the Effects of F Ions in the AlGaN Layer on the Two-Dimensional Electron Density in AlGaN/GaN HEMTs. ECS Journal of Solid State Science and Technology, 2019, 8, P472-P479.	0.9	3
75	Novel spoof surface plasmon polaritons on a planar metallic strip with periodic semi-elliptical grooves at microwave frequency. Journal of Electromagnetic Waves and Applications, 2019, 33, 125-137.	1.0	3
76	The Dopant Local Effect on the Stability of an Oxygen Vacancy and the Reliability of a Conductive Filament in Rutile Titanium Dioxide. Physica Status Solidi (B): Basic Research, 2020, 257, 1900455.	0.7	3
77	First-Principles investigation on the behavior of Pt single and triple atoms supported on monolayer CuO (1 1 0) in CO oxidation. Applied Surface Science, 2021, 564, 150435.	3.1	3
78	First principle studies revealing the effect of O2, CO2, and H2 adsorption on field emission behaviour of graphene. Applied Surface Science, 2022, 599, 153938.	3.1	3
79	Numerical analysis for the effects of interface roughness on the attenuation amplitudes of Fowler–Nordheim tunneling current oscillations in ultrathin MOSFETs. Solid-State Electronics, 2001, 45, 1081-1084.	0.8	2
80	Current-voltage Characteristics of Graphene Nanoribbon Schottky Diodes. IETE Journal of Research, 2012, 58, 65.	1.8	2
81	Nature of the Interstitials in Titanium Dioxide and Their Impact on Transmission Coefficient:Ab InitioCalculations. Journal of Nanomaterials, 2015, 2015, 1-9.	1.5	2
82	The phononic crystal interface layer determines slow-wave and pulse broadening effects. Turkish Journal of Electrical Engineering and Computer Sciences, 2016, 24, 3759-3768.	0.9	2
83	Electrical Double-Layer Modeling of Different Al-Content on the Performance of AlGaN/GaN HEMTs. ECS Journal of Solid State Science and Technology, 2018, 7, P496-P500.	0.9	2
84	Measurements of the widths of transition regions at Si–SiO2 interfaces in metal-oxide–semiconductor structures from quantum oscillations in Fowler–Nordheim tunneling current. Solid State Communications, 2001, 119, 67-71.	0.9	1
85	An analytical approach to the tunnelling current of MOSFETs considering the barrier height reduction caused by the channel electron velocity due to the effective electron mass difference between silicon and oxide. Physica Status Solidi (A) Applications and Materials Science, 2007, 204, 3193-3200.	0.8	1
86	Effects of Dielectric Constant Mismatch on Capacitance-voltage Curve. IETE Journal of Research, 2009, 55, 218.	1.8	1
87	A Low Power Area Efficient Full Custom 3-Read 3-Write General Purpose Register in 65nm Technology. , 2013, , .		1
88	Energy relaxation of electrons impacts on channel quantization in nano-MOSFETs. Applied Physics A: Materials Science and Processing, 2014, 117, 1835-1840.	1.1	1
89	First-principle study on the relaxation of defected titanium dioxide under electric fields and its impacts on capacitor-voltage curves. European Physical Journal B, 2014, 87, 1.	0.6	1
90	Effects of Energy Relaxation via Quantum Coupling Among Three-Dimensional Motion on the Tunneling Current of Graphene Field-Effect Transistors. Nanoscale Research Letters, 2015, 10, 1039.	3.1	1

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91	The impact of the dopants on the formation of conductive path in titanium dioxide: ab initio calculations. European Physical Journal B, 2016, 89, 1.	0.6	1
92	Field emission from Dirac and Weyl semimetals. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	1.1	1
93	A Precise Design for Testing High-Speed Embedded Memory using a BIST Circuit. IETE Journal of Research, 2017, 63, 473-481.	1.8	1
94	Formation mechanism of conduction path in titanium dioxide with Ti-interstitials-doped: Car–Parrinello molecular dynamics. AIP Conference Proceedings, 2017, , .	0.3	1
95	Investigation of visibleâ€light absorption in Cu ₂ O/TiO ₂ heterojunctions with an interstitial at the interface. Physica Status Solidi (B): Basic Research, 2017, 254, 1600420.	0.7	1
96	Physical origin of the temperature-dependent open-circuit voltage in solar cells. Applied Physics A: Materials Science and Processing, 2020, 126, 1.	1.1	1
97	Using modelâ $\in^{\mathbb{M}}$ s temporal features and hierarchical structure for similar activity recognition. Journal of Ambient Intelligence and Humanized Computing, 2020, , 1.	3.3	1
98	Hot-Carriers' Effect on the Performance of Organic Schottky Diodes. IEEE Access, 2020, 8, 65970-65982.	2.6	1
99	An improved method for determining the critical energy for interface trap generation of n-MOSFETs under Vg=Vd/2 stress mode. Solid-State Electronics, 2001, 45, 385-389.	0.8	0
100	A simple theory to determine the attenuation amplitudes of quantum oscillations. , 0, , .		0
101	Analysis of Resonant Frequency for Electromagnetic Bandgap Structure Based on Phase Coherence. IETE Journal of Research, 2012, 58, 459.	1.8	0
102	Transmission resonant frequency and its amplitude prediction for ebg structure based on phase coherence. Microwave and Optical Technology Letters, 2012, 54, 409-412.	0.9	0
103	Research on application of nonlinear system in communication jamming. , 2013, , .		0
104	THE KINK EFFECTS IN NANO- GaAs DEVICES DUE TO MULTI-VALLEY ELECTRON TRANSPORT. International Journal of Modern Physics B, 2013, 27, 1350172.	1.0	0
105	First-principle study on the effects of electric field and anisotropic oxygen vacancy on dielectric properties of rutile titanium dioxide. EPJ Applied Physics, 2014, 68, 10104.	0.3	0
106	Time domain characteristics for sub-wavelength defect in one-dimensional structure. , 2015, , .		0
107	First-Principle Study on the Effects of Electric Field and Oxygen Vacancy on Fine Structure of Rutile Titanium Dioxide and Its Effects on Fowler-Nordheim Tunneling Current in Memory. Journal of Computational and Theoretical Nanoscience, 2015, 12, 2274-2280.	0.4	0
108	28nm latch type sense amplifier coupling effect analysis. , 2016, , .		0

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109	A rectangular patch antenna with wideband high order harmonic suppression using compact defected microstrip structure. , 2016, , .		0
110	Statistical Analysis of Process Variations on the Delay-Based PUF. , 2016, , .		0
111	STT MTJ data-aware write boost design in 28nm process. , 2016, , .		0
112	Modeling of light coupling effect using tunneling theory based on particle properties of light. Optical and Quantum Electronics, 2017, 49, 1.	1.5	0
113	Adsorption effect on the formation of conductive path in defective TiO ₂ : ab initio calculations. EPJ Applied Physics, 2017, 80, 10104.	0.3	0
114	Quantum scattering and its impact on the source–drain current with defect generation in the channel of nanoscale transistors. Indian Journal of Physics, 2020, 94, 583-592.	0.9	0
115	Comparison of the Visible Light Absorption of Titanium Dioxide Photocatalyst with the Ti or Cu Interstitials: Ab Initio Calculations. Journal of Computational and Theoretical Nanoscience, 2017, 14, 1058-1067.	0.4	0
116	Conductive Path Along Aggregated O–O Bonds and Its Disruption as Oxygen Vacancy: Ab Initio Calculations. Journal of Computational and Theoretical Nanoscience, 2017, 14, 4377-4383.	0.4	0
117	Modeling negative and positive temperature dependence of the gate leakage current in GaN high a \in electron mobility transistors. ETRI Journal, 0, , .	1.2	0
118	Quantum coupling and hot-carriers impacts on excitons and optical spectrum of GaN devices. Physica E: Low-Dimensional Systems and Nanostructures, 2022, 139, 115156.	1.3	0
119	Modeling source–drain voltage-dependent energy needed for emission or absorption of a photon in GaN devices. Applied Physics A: Materials Science and Processing, 2022, 128, 1.	1.1	0
120	Applying quantum tunnelling concept in the study of the coupling in acoustic waveguides. Results in Physics, 2022, , 105528.	2.0	0
121	Monte Carlo simulation of the relationship between intervalley energy difference and electron transport in GaN devices. Pramana - Journal of Physics, 2022, 96, .	0.6	0
122	Electron velocity distribution on the abrupt change in source–drain current of GaN devices. International Journal of Modern Physics B, O, , .	1.0	О