

Shulong Wang

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	A Triangle Hybrid Plasmonic Waveguide with Long Propagation Length for Ultradeep Subwavelength Confinement. <i>Crystals</i> , 2022, 12, 64.	1.0	1
2	Analog Synapses Based on Nonvolatile FETs With Amorphous ZrO_2 Dielectric for Spiking Neural Network Applications. <i>IEEE Transactions on Electron Devices</i> , 2022, 69, 1028-1033.	1.6	12
3	Polarization Gradient Effect of Negative Capacitance LTFET. <i>Micromachines</i> , 2022, 13, 344.	1.4	5
4	Atomic Layer Deposition of Ultrathin La_2O_3/Al_2O_3 Nanolaminates on MoS_2 with Ultraviolet Ozone Treatment. <i>Materials</i> , 2022, 15, 1794.	1.3	2
5	The Image Identification Application with HfO_2 -Based Replaceable 1T1R Neural Networks. <i>Nanomaterials</i> , 2022, 12, 1075.	1.9	3
6	A high performance trench gate tunneling field effect transistor based on quasi-broken gap energy band alignment heterojunction. <i>Nanotechnology</i> , 2022, 33, 225205.	1.3	6
7	Polarization properties in grating-gated AlN/GaN HEMTs at mid-infrared frequencies. <i>Optics Express</i> , 2022, 30, 14748.	1.7	5
8	Prediction of electrical properties of FDSOI devices based on deep learning. <i>Nanotechnology</i> , 2022, 33, 335203.	1.3	1
9	Hybrid Nanowire-Rectangular Plasmonic Waveguide for Subwavelength Confinement at 1550 Nm. <i>Micromachines</i> , 2022, 13, 1009.	1.4	5
10	The accelerated design of the nanoantenna arrays by deep learning. <i>Nanotechnology</i> , 2022, 33, 485204.	1.3	1
11	Adjusting transmissivity based on graphene-h-BN-graphene heterostructure as a tunable phonon-plasmon coupling system in mid-infrared band. <i>Journal of Materials Science</i> , 2021, 56, 3210-3219.	1.7	3
12	Synthesis and Spectral Characteristics Investigation of the 2D-2D vdWs Heterostructure Materials. <i>International Journal of Molecular Sciences</i> , 2021, 22, 1246.	1.8	2
13	Simulation and Performance Analysis of Dielectric Modulated Dual Source Trench Gate TFET Biosensor. <i>Nanoscale Research Letters</i> , 2021, 16, 34.	3.1	25
14	Multi-Level Switching of Al-Doped HfO_2 RRAM with a Single Voltage Amplitude Set Pulse. <i>Electronics (Switzerland)</i> , 2021, 10, 731.	1.8	19
15	Volatile and Nonvolatile Memory Operations Implemented in a $Pt/HfO_2/Ti$ Memristor. <i>IEEE Transactions on Electron Devices</i> , 2021, 68, 1622-1626.	1.6	22
16	Study on Single Event Effect Simulation in T-Shaped Gate Tunneling Field-Effect Transistors. <i>Micromachines</i> , 2021, 12, 609.	1.4	5
17	Investigation of charge trapping mechanism in MoS_2 field effect transistor by incorporating Al into host La_2O_3 as gate dielectric. <i>Nanotechnology</i> , 2021, 32, 305201.	1.3	5
18	Low-Power OR Logic Ferroelectric In-Situ Transistor Based on a $CuInP_2S_6/MoS_2$ Van Der Waals Heterojunction. <i>Nanomaterials</i> , 2021, 11, 1971.	1.9	5

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19	A subwavelength high modulation depth optical modulator based on bilayer graphene. <i>Optical Materials</i> , 2021, 117, 111139.	1.7	3
20	All-Optical Synapse With Directional Coupler Structure Based on Phase Change Material. <i>IEEE Photonics Journal</i> , 2021, 13, 1-6.	1.0	3
21	Preparation and Research of Monolayer WS ₂ FETs Encapsulated by h-BN Material. <i>Micromachines</i> , 2021, 12, 1006.	1.4	5
22	A waveguide-integrated graphene-based subwavelength electro-optic switch at 1550 nm. <i>Optics Communications</i> , 2021, 495, 127121.	1.0	3
23	Ferroelectric-Like Non-Volatile FET With Amorphous Gate Insulator for Supervised Learning Applications. <i>IEEE Journal of the Electron Devices Society</i> , 2021, 9, 1145-1150.	1.2	4
24	Research on Total Ionizing Dose Effect and Reinforcement of SOI-TFET. <i>Micromachines</i> , 2021, 12, 1232.	1.4	5
25	Sensitivity Analysis of Biosensors Based on a Dielectric-Modulated L-Shaped Gate Field-Effect Transistor. <i>Micromachines</i> , 2021, 12, 19.	1.4	16
26	Modeling and Simulation of Hafnium Oxide RRAM Based on Oxygen Vacancy Conduction. <i>Crystals</i> , 2021, 11, 1462.	1.0	8
27	First-Principles Study on the Effect of Strain on Single-Layer Molybdenum Disulfide. <i>Nanomaterials</i> , 2021, 11, 3127.	1.9	9
28	Improvement of Electrical Performance in Heterostructure Junctionless TFET Based on Dual Material Gate. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 126.	1.3	18
29	Comprehensive Performance Quasi-Non-Volatile Memory Compatible with Large-Scale Preparation by Chemical Vapor Deposition. <i>Nanomaterials</i> , 2020, 10, 1471.	1.9	4
30	Fabrication and Characterization of MoS ₂ /h-BN and WS ₂ /h-BN Heterostructures. <i>Micromachines</i> , 2020, 11, 1114.	1.4	11
31	Graphene Electro-Optical Switch Modulator by Adjusting Propagation Length Based on Hybrid Plasmonic Waveguide in Infrared Band. <i>Sensors</i> , 2020, 20, 2864.	2.1	8
32	TCAD simulation of a double L-shaped gate tunnel field-effect transistor with a covered source-channel. <i>Micro and Nano Letters</i> , 2020, 15, 272-276.	0.6	11
33	Electrical performance of InAs/GaAs _{0.1} Sb _{0.9} heterostructure junctionless TFET with dual-material gate and Gaussian-doped source. <i>Semiconductor Science and Technology</i> , 2020, 35, 095004.	1.0	13
34	Filtering Characteristics of Phonon Polaritons Waves Based on Dielectric-h-BN-Dielectric Structure in Mid-Infrared Band. <i>Nanomaterials</i> , 2020, 10, 878.	1.9	1
35	Self-Compliance and High Performance Pt/HfO _x /Ti RRAM Achieved through Annealing. <i>Nanomaterials</i> , 2020, 10, 457.	1.9	28
36	The Effect of Ion Irradiation Density on the Defect of Graphene: A Molecular Dynamics Study. <i>Crystals</i> , 2020, 10, 158.	1.0	3

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37	Wide-Range Tunable Narrow Band-Stop Filter Based on Bilayer Graphene in the Mid-Infrared Region. IEEE Photonics Journal, 2020, 12, 1-9.	1.0	7
38	The Large-Scale Preparation and Optical Properties of MoS ₂ /WS ₂ Vertical Hetero-Junction. Molecules, 2020, 25, 1857.	1.7	7
39	Electrical Phase Control Based on Graphene Surface Plasmon Polaritons in Mid-infrared. Nanomaterials, 2020, 10, 576.	1.9	8
40	TCAD Simulation of the Doping-Less TFET with Ge/SiGe/Si Hetero-Junction and Hetero-Gate Dielectric for the Enhancement of Device Performance. Coatings, 2020, 10, 278.	1.2	4
41	Research on the Preparation and Spectral Characteristics of Graphene/TMDs Hetero-structures. Nanoscale Research Letters, 2020, 15, 219.	3.1	8
42	A Novel Dopingless Fin-Shaped SiGe Channel TFET with Improved Performance. Nanoscale Research Letters, 2020, 15, 202.	3.1	25
43	Research of Heterogeneous Acceleration Optimization of Convolutional Neural Network Algorithm for Unmanned Vehicle Based on FPGA. , 2019, , .		1
44	Enhanced Interfacial Characteristics of Atomic Layer Deposited LaAlO ₃ Thin Films. , 2019, , .		0
45	A Long Propagation Distance Hybrid Triangular Prism Waveguide for Ultradeep Subwavelength Confinement. IEEE Sensors Journal, 2019, 19, 11159-11166.	2.4	7
46	Optical Transport Properties of Graphene Surface Plasmon Polaritons in Mid-Infrared Band. Crystals, 2019, 9, 354.	1.0	22
47	A novel Ge based overlapping gate dopingless tunnel FET with high performance. Japanese Journal of Applied Physics, 2019, 58, 100902.	0.8	9
48	A Multi-level Memristor Based on Al-Doped HfO ₂ Thin Film. Nanoscale Research Letters, 2019, 14, 177.	3.1	38
49	Probing the Field-Effect Transistor with Monolayer MoS ₂ Prepared by APCVD. Nanomaterials, 2019, 9, 1209.	1.9	10
50	A Horizontal-Gate Monolayer MoS ₂ Transistor Based on Image Force Barrier Reduction. Nanomaterials, 2019, 9, 1245.	1.9	10
51	Design and Investigation of a Dual Material Gate Arsenic Alloy Heterostructure Junctionless TFET with a Lightly Doped Source. Applied Sciences (Switzerland), 2019, 9, 4104.	1.3	8
52	The Influence of Copper Substrates on Irradiation Effects of Graphene: A Molecular Dynamics Study. Materials, 2019, 12, 319.	1.3	2
53	Design and Investigation of the High Performance Doping-Less TFET with Ge/Si _{0.6} Ge _{0.4} /Si Heterojunction. Micromachines, 2019, 10, 424.	1.4	10
54	A Doping-Less Tunnel Field-Effect Transistor with Si _{0.6} Ge _{0.4} Heterojunction for the Improvement of the On-Off Current Ratio and Analog/RF Performance. Electronics (Switzerland), 2019, 8, 574.	1.8	9

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55	Improved resistive switching characteristics of atomic layer deposited Al ₂ O ₃ /La ₂ O ₃ /Al ₂ O ₃ multi-stacked films with Al ⁺ implantation. <i>Journal of Materials Science: Materials in Electronics</i> , 2019, 30, 12577-12583.	1.1	7
56	Electrical Properties and Interfacial Issues of HfO ₂ /Ge MIS Capacitors Characterized by the Thickness of La ₂ O ₃ Interlayer. <i>Nanomaterials</i> , 2019, 9, 697.	1.9	11
57	Probing the Optical Properties of MoS ₂ on SiO ₂ /Si and Sapphire Substrates. <i>Nanomaterials</i> , 2019, 9, 740.	1.9	25
58	Design and Investigation of the Junction-Less TFET with Ge/Si _{0.3} Ge _{0.7} /Si Heterojunction and Heterogeneous Gate Dielectric. <i>Electronics (Switzerland)</i> , 2019, 8, 476.	1.8	14
59	Probing the Growth Improvement of Large-Size High Quality Monolayer MoS ₂ by APCVD. <i>Nanomaterials</i> , 2019, 9, 433.	1.9	9
60	Design and investigation of dopingless dual-gate tunneling transistor based on line tunneling. <i>AIP Advances</i> , 2019, 9, .	0.6	10
61	Effect of the High-Temperature Off-State Stresses on the Degradation of AlGaN/GaN HEMTs. <i>Electronics (Switzerland)</i> , 2019, 8, 1339.	1.8	5
62	A New Electro-Optical Switch Modulator Based on the Surface Plasmon Polaritons of Graphene in Mid-Infrared Band. <i>Sensors</i> , 2019, 19, 89.	2.1	10
63	Modulation speed limits of a graphene-based modulator. <i>Optical and Quantum Electronics</i> , 2018, 50, 1.	1.5	14
64	A High-Performance Gate Engineered InGaN Dopingless Tunnel FET. <i>IEEE Transactions on Electron Devices</i> , 2018, 65, 1223-1229.	1.6	68
65	The Optimization of Spacer Engineering for Capacitor-Less DRAM Based on the Dual-Gate Tunneling Transistor. <i>Nanoscale Research Letters</i> , 2018, 13, 73.	3.1	4
66	Improvements on the Interfacial Properties of High-k/Ge MIS Structures by Inserting a La ₂ O ₃ Passivation Layer. <i>Materials</i> , 2018, 11, 2333.	1.3	5
67	Research on the Factors Affecting the Growth of Large-Size Monolayer MoS ₂ by APCVD. <i>Materials</i> , 2018, 11, 2562.	1.3	6
68	Analog/RF Performance of T-Shape Gate Dual-Source Tunnel Field-Effect Transistor. <i>Nanoscale Research Letters</i> , 2018, 13, 321.	3.1	53
69	TCAD Simulation of Single-Event-Transient Effects in L-Shaped Channel Tunneling Field-Effect Transistors. <i>IEEE Transactions on Nuclear Science</i> , 2018, 65, 2250-2259.	1.2	42
70	Symmetric U-Shaped Gate Tunnel Field-Effect Transistor. <i>IEEE Transactions on Electron Devices</i> , 2017, 64, 1343-1349.	1.6	81
71	Reduced Miller Capacitance in U-Shaped Channel Tunneling FET by Introducing Heterogeneous Gate Dielectric. <i>IEEE Electron Device Letters</i> , 2017, 38, 403-406.	2.2	33
72	Hybrid Tube-Triangle Plasmonic Waveguide for Ultradeep Subwavelength Confinement. <i>Journal of Lightwave Technology</i> , 2017, 35, 2259-2265.	2.7	21

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73	Analog/RF performance of L- and U-shaped channel tunneling field-effect transistors and their application as digital inverters. Japanese Journal of Applied Physics, 2017, 56, 064102.	0.8	23
74	A high performance Ge/Si 0.5 Ge 0.5 /Si heterojunction dual sources tunneling transistor with a U-shaped channel. Superlattices and Microstructures, 2017, 106, 8-19.	1.4	10
75	Design of High Performance Si/SiGe Heterojunction Tunneling FETs with a T-Shaped Gate. Nanoscale Research Letters, 2017, 12, 198.	3.1	56
76	Analog/RF performance of two tunnel FETs with symmetric structures. Superlattices and Microstructures, 2017, 111, 568-573.	1.4	4
77	Invariant object recognition based on combination of sparse DBN and SOM with temporal trace rule. Multimedia Tools and Applications, 2017, 76, 12017-12034.	2.6	1
78	Impacts of the Oxygen Precursor on the Interfacial Properties of $\text{La}_x\text{Al}_y\text{O}$ Films Grown by Atomic Layer Deposition on Ge. Materials, 2017, 10, 856.	1.3	1
79	A 130 GHz Electro-Optic Ring Modulator with Double-Layer Graphene. Crystals, 2017, 7, 65.	1.0	11
80	The Programming Optimization of Capacitorless 1T DRAM Based on the Dual-Gate TFET. Nanoscale Research Letters, 2017, 12, 524.	3.1	5
81	Graphene-Hexagonal Boron Nitride Heterostructure as a Tunable Phonon-Plasmon Coupling System. Crystals, 2017, 7, 49.	1.0	11
82	Electrical properties and interfacial issues of high- κ /Si MIS capacitors characterized by the thickness of Al_2O_3 interlayer. AIP Advances, 2016, 6, .	0.6	4
83	Influences of rapid thermal annealing on the characteristics of $\text{Al}_2\text{O}_3\text{La}_2\text{O}_3\text{Si}$ and $\text{La}_2\text{O}_3\text{Al}_2\text{O}_3\text{Si}$ films deposited by atomic layer deposition. Journal of Materials Science: Materials in Electronics, 2016, 27, 8550-8558.	1.1	6
84	Multiscale simulations of swift heavy ion irradiation effect on bilayer graphene. IEICE Electronics Express, 2016, 13, 20151040-20151040.	0.3	2
85	Analog/RF performance of four different Tunneling FETs with the recessed channels. Superlattices and Microstructures, 2016, 100, 1238-1248.	1.4	14
86	Research on the origin of negative effect in uniform doping GaN-based Gunn diode under THz frequency. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	1.1	3
87	Simulation of Displacement Damage in Nanoscale MOSFET Caused by Galactic Cosmic Rays. Journal of Computational and Theoretical Nanoscience, 2016, 13, 5242-5246.	0.4	0
88	Molecular dynamics simulation of latent track formation in bilayer graphene. IEICE Electronics Express, 2015, 12, 20150771-20150771.	0.3	3
89	Anisotropic longitudinal electron diffusion coefficient in wurtzite gallium nitride. Applied Physics A: Materials Science and Processing, 2013, 112, 933-938.	1.1	1