FayÃ§al Djeffal

List of Publications by Year
in descending order

166 papers	2,297 citations	186265 28 h-index	302126 39 g-index
167 all docs	167 docs citations	167 times ranked	1117 citing authors

#	ARTICLE	IF	CITATIONS
1	Double-Gate Graphene Nanoribbon Field-Effect Transistor for DNA and Gas Sensing Applications: Simulation Study and Sensitivity Analysis. IEEE Sensors Journal, 2016, 16, 4180-4191.	4.7	107
2	An equivalent circuit approach to organic solar cell modelling. Microelectronics Journal, 2008, 39, 1173-1180.	2.0	83
3	Analytical analysis of nanoscale multiple gate MOSFETs including effects of hot-carrier induced interface charges. Microelectronics Reliability, 2009, 49, 377-381.	1.7	76
4	A two-dimensional analytical analysis of subthreshold behavior to study the scaling capability of nanoscale graded channel gate stack DG MOSFETs. Physica E: Low-Dimensional Systems and Nanostructures, 2009, 41, 1872-1877.	2.7	55
5	An approach based on neural computation to simulate the nanoscale CMOS circuits: Application to the simulation of CMOS inverter. Solid-State Electronics, 2007, 51, 48-56.	1.4	54
6	Graded band-gap engineering for increased efficiency in CZTS solar cells. Optical Materials, 2018, 76, 393-399.	3.6	54
7	Optimized high-performance ITO/Ag/ITO multilayer transparent electrode deposited by RF magnetron sputtering. Superlattices and Microstructures, 2019, 129, 176-184.	3.1	48
8	Self-powered photodetector with improved and broadband multispectral photoresponsivity based on ZnO-ZnS composite. Journal of Alloys and Compounds, 2021, 859, 158242.	5.5	47
9	Electrical Performance Optimization of Nanoscale Double-Gate MOSFETs Using Multiobjective Genetic Algorithms. IEEE Transactions on Electron Devices, 2011, 58, 3743-3750.	3.0	46
10	Highly improved responsivity of self-powered UV–Visible photodetector based on TiO2/Ag/TiO2 multilayer deposited by GLAD technique: Effects of oriented columns and nano-sculptured surface. Applied Surface Science, 2020, 529, 147069.	6.1	46
11	Improved analog and RF performances of gate-all-around junctionless MOSFET with drain and source extensions. Superlattices and Microstructures, 2016, 90, 132-140.	3.1	45
12	Design and simulation of a nanoelectronic DG MOSFET current source using artificial neural networks. Materials Science and Engineering C, 2007, 27, 1111-1116.	7.3	42
13	Role of Optimized Grooves Surface-Textured Front Glass in Improving TiO$_2$ Thin-Film UV Photodetector Performance. IEEE Sensors Journal, 2016, 16, 5618-5625.	4.7	42
14	High-Responsivity MSM Solar-Blind UV Photodetector Based on Annealed ITO/Ag/ITO Structure Using RF Sputtering. IEEE Sensors Journal, 2019, 19, 7942-7949.	4.7	39
15	Improved analog/RF performance of double gate junctionless MOSFET using both gate material engineering and drain/source extensions. Superlattices and Microstructures, 2016, 92, 80-91.	3.1	38
16	Carbon Nanotube Field-Effect Transistor With Vacuum Gate Dielectric for Label-Free Detection of DNA Molecules: A Computational Investigation. IEEE Sensors Journal, 2019, 19, 9263-9270.	4.7	37
17	A novel high-performance self-powered ultraviolet photodetector: Concept, analytical modeling and analysis. Superlattices and Microstructures, 2017, 112, 480-492.	3.1	35
18	Highly sensitive, ultra-low dark current, self-powered solar-blind ultraviolet photodetector based on ZnO thin-film with an engineered rear metallic layer. Materials Science in Semiconductor Processing, 2020, 110, 104957.	4.0	35

#	Article	IF	Citations
19	An optimized design of 10-nm-scale dual-material surrounded gate MOSFETs for digital circuit applications. Physica E: Low-Dimensional Systems and Nanostructures, 2011, 44, 339-344.	2.7	34
20	A two-dimensional analytical subthreshold behavior analysis including hot-carrier effect for nanoscale Gate Stack Gate All Around (GASGAA) MOSFETs. Journal of Computational Electronics, 2011, 10, 179-185.	2.5	34
21	Planar junctionless phototransistor: A potential high-performance and low-cost device for optical-communications. Optics and Laser Technology, 2017, 97, 29-35.	4.6	34
22	Analytical analysis of nanoscale fully depleted Double-Gate MOSFETs including the hot-carrier degradation effects. International Journal of Electronics, 2010, 97, 119-127.	1.4	32
23	An improved analog electrical performance of submicron Dual-Material gate (DM) GaAs-MESFETs using multi-objective computation. Journal of Computational Electronics, 2013, 12, 29-35.	2.5	32
24	New high performance ultraviolet (MSM) TiO2/glass photodetector based on diffraction grating for optoelectronic applications. Optik, 2016, 127, 7202-7209.	2.9	32
25	Multi-objective genetic algorithms based approach to optimize the electrical performances of the gate stack double gate (GSDG) MOSFET. Microelectronics Journal, 2011, 42, 661-666.	2.0	31
26	A neural approach to study the scaling capability of the undoped Double-Gate and cylindrical Gate All Around MOSFETs. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2008, 147, 239-244.	3.5	29
27	Continuous analytic I–V model for GS DG MOSFETs including hot-carrier degradation effects. Journal of Semiconductors, 2012, 33, 014001.	3.7	29
28	An analytical approach based on neural computation to estimate the lifetime of deep submicron MOSFETs. Semiconductor Science and Technology, 2005, 20, 158-164.	2.0	28
29	New Dual-Dielectric Gate All Around (DDGAA) RADFET dosimeter design to improve the radiation sensitivity. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2012, 683, 24-28.	1.6	28
30	A novel graphene field-effect transistor for radiation sensing application with improved sensitivity: Proposal and analysis. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2018, 901, 32-39.	1.6	28
31	Particle swarm optimization versus genetic algorithms to study the electron mobility in wurtzite GaN-based devices. Solid-State Electronics, 2009, 53, 988-992.	1.4	27
32	A computationally efficient hybrid approach based on artificial neural networks and the wavelet transform for quantum simulations of graphene nanoribbon FETs. Journal of Computational Electronics, 2019, 18, 813-825.	2.5	26
33	Exceeding 30 % efficiency for an environment-friendly tandem solar cell based on earth-abundant Se/CZTS materials. Physica E: Low-Dimensional Systems and Nanostructures, 2019, 109, 52-58.	2.7	26
34	Numerical investigation of a double-junction a:SiGe thin-film solar cell including the multi-trench region. Journal of Semiconductors, 2015, 36, 064004.	3.7	25
35	Boosting the performance of a nanoscale graphene nanoribbon field-effect transistor using graded gate engineering. Journal of Computational Electronics, 2018, 17, 1276-1284.	2.5	25
36	Numerical analysis of Double Gate and Gate All Around MOSFETs with bulk trap states. Journal of Materials Science: Materials in Electronics, 2008, 19, 248-253.	2.2	24

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37	Drain current model for undoped Gate Stack Double Gate (GSDG) MOSFETs including the hot-carrier degradation effects. Microelectronics Reliability, 2011, 51, 550-555.	1.7	24
38	Efficiency increase of hybrid organic/inorganic solar cells with optimized interface grating morphology for improved light trapping. Optik, 2017, 130, 1092-1098.	2.9	24
39	Kinetics of graphitization of thin diamond-like carbon (DLC) films catalyzed by transition metal. Diamond and Related Materials, 2019, 91, 190-198.	3.9	23
40	A new high-performance phototransistor design based on both surface texturization and graded gate doping engineering. Journal of Computational Electronics, 2016, 15, 301-310.	2.5	22
41	Graded channel doping junctionless MOSFET: a potential high performance and low power leakage device for nanoelectronic applications. Journal of Computational Electronics, 2018, 17, 129-137.	2.5	22
42	Role of ITO ultra-thin layer in improving electrical performance and thermal reliability of Au/ITO/Si/Au structure: An experimental investigation. Superlattices and Microstructures, 2018, 120, 419-426.	3.1	21
43	Performance enhancement of Pt/TiO2/Si UV-photodetector by optimizing light trapping capability and interdigitated electrodes geometry. Superlattices and Microstructures, 2016, 97, 303-312.	3.1	20
44	Post-annealing effects on RF sputtered all-amorphous ZnO/SiC heterostructure for solar-blind highly-detective and ultralow dark-noise UV photodetector. Journal of Non-Crystalline Solids, 2021, 574, 121168.	3.1	20
45	New highly efficient 2D SiC UV-absorbing material with plasmonic light trapping. Journal of Physics Condensed Matter, 2020, 32, 025701.	1.8	20
46	The role of the Ge mole fraction in improving the performance of a nanoscale junctionless tunneling FET: concept and scaling capability. Beilstein Journal of Nanotechnology, 2018, 9, 1856-1862.	2.8	19
47	A Comparative Study on Scaling Capabilities of Si and SiGe Nanoscale Double Gate Tunneling FETs. Silicon, 2020, 12, 945-953.	3.3	19
48	Subthreshold behavior optimization of nanoscale Graded Channel Gate Stack Double Gate (GCGSDG) MOSFET usingÂmulti-objective genetic algorithms. Journal of Computational Electronics, 2011, 10, 210-215.	2.5	18
49	Role of gradual gate doping engineering in improving phototransistor performance for ultra-low power applications. Journal of Computational Electronics, 2016, 15, 550-556.	2.5	18
50	Performance assessment of TCO/metal/TCO multilayer transparent electrodes: from design concept to optimization. Journal of Computational Electronics, 2020, 19, 815-824.	2.5	18
51	Role of non-uniform channel doping in improving the nanoscale JL DG MOSFET reliability against the self-heating effects. Superlattices and Microstructures, 2017, 109, 869-879.	3.1	17
52	Electronâ€"phonon dynamics in 2D carbon based-hybrids XC (Xâ€‰â€‰=â€‰â€‰Si, Ge, Sn). Journal of Physics Condensed Matter, 2019, 31, 135702.	1.8	17
53	Efficiency improvement of CIGS solar cells using RF sputtered TCO/Ag/TCO thin-film as prospective buffer layer. Ceramics International, 2022, 48, 20194-20200.	4.8	17
54	A two-dimensional analytical model of subthreshold behavior to study the scaling capability of deep submicron double-gate GaN-MESFETs. Journal of Computational Electronics, 2011, 10, 382-387.	2.5	15

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55	Twoâ€dimensional numerical analysis of nanoscale junctionless and conventional Double Gate MOSFETs including the effect of interfacial traps. Physica Status Solidi C: Current Topics in Solid State Physics, 2012, 9, 2041-2044.	0.8	15
56	Impacts of high-k gate dielectrics and low temperature on the performance of nanoscale CNTFETs. Journal of Computational Electronics, 2016, 15, 1308-1315.	2.5	15
57	Impact of the drain and source extensions on nanoscale Double-Gate Junctionless MOSFET analog and RF performances. Materials Science in Semiconductor Processing, 2016, 42, 264-267.	4.0	15
58	Boosting the optical performance and commutation speed of phototransistor using SiGe/Si/Ge tunneling structure. Materials Research Express, 2018, 5, 065902.	1.6	15
59	An analytical two dimensional subthreshold behavior model to study the nanoscale GCGS DG Si MOSFET including interfacial trap effects. Microelectronics Reliability, 2013, 53, 520-527.	1.7	14
60	A new approach to the modeling and simulation of multi-junction solar cells. Optik, 2020, 200, 163452.	2.9	14
61	Giant Detectivity of ZnO-Based Self-Powered UV Photodetector by Inserting an Engineered Back Gold Layer Using RF Sputtering. IEEE Sensors Journal, 2020, 20, 3512-3519.	4.7	14
62	Microstructured ZnO-ZnS composite for earth-abundant photovoltaics: Elaboration, surface analysis and enhanced optical performances. Solar Energy, 2021, 218, 312-319.	6.1	14
63	An optimized metal grid design to improve the solar cell performance under solar concentration using multiobjective computation. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2013, 178, 574-579.	3.5	13
64	Giant responsivity of a new InGaZnO ultraviolet thin-film phototransistor based on combined dual gate engineering and surface decorated Ag nanoparticles aspects. Sensors and Actuators A: Physical, 2021, 318, 112523.	4.1	13
65	Highly-detective tunable band-selective photodetector based on RF sputtered amorphous SiC thin-film: Effect of sputtering power. Journal of Alloys and Compounds, 2022, 907, 164464.	5.5	13
66	Performance improvement of Perovskite/CZTS tandem solar cell using low-cost ZnS/Ag/ITO multilayer spectrum splitter. Superlattices and Microstructures, 2020, 148, 106727.	3.1	12
67	An efficient ITO-free transparent electrode based on diamond-like carbon with an engineered intermediate metallic thin-film. Solar Energy, 2020, 196, 327-335.	6.1	11
68	Effects of annealing process on the structural and photodetection properties of new thin-film solar-blind UV sensor based on Si-photonics technology. Materials Science in Semiconductor Processing, 2021, 121, 105331.	4.0	11
69	New optimized Dual-Material (DM) gate design to improve the submicron GaN-MESFETs reliability in subthreshold regime. Microelectronics Reliability, 2012, 52, 958-963.	1.7	10
70	An efficient analytical model for tandem solar cells. Materials Research Express, 2019, 6, 076424.	1.6	10
71	Influence of TCO intermediate thin-layers on the electrical and thermal properties of metal/TCO/p-Si Schottky structure fabricated via RF magnetron sputtering. Physica E: Low-Dimensional Systems and Nanostructures, 2019, 106, 25-30.	2.7	10
72	Numerical Investigation of the SiGe/Si Heterostructure Including Interfacial Defects for Photovoltaic Applications. Advanced Materials Research, 0, 856, 188-192.	0.3	9

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73	Enhanced infrared photoresponse of a new InGaZnO TFT based on Ge capping layer and high-k dielectric material. Superlattices and Microstructures, 2021, 156, 106967.	3.1	9
74	Layers engineering optoelectronic properties of 2D hexagonal GeS materials. Physica E: Low-Dimensional Systems and Nanostructures, 2021, 133, 114791.	2.7	9
75	Optimizing the optical performance of ZnO/Si-based solar cell using metallic nanoparticles and interface texturization. Optik, 2018, 153, 43-49.	2.9	8
76	Perovskite/InGaAs tandem cell exceeding 29% efficiency via optimizing spectral splitter based on RF sputtered ITO/Ag/ITO ultra-thin structure. Physica E: Low-Dimensional Systems and Nanostructures, 2021, 128, 114618.	2.7	8
77	Multispectral photodetection using low-cost sputtered NiO/Ag/ITO heterostructure: From design concept to elaboration. Ceramics International, 2021, 47, 15703-15709.	4.8	8
78	Giant responsivity of a new optically controlled graphene UV-phototransistor using graded band-gap ZnMgO gate. Sensors and Actuators A: Physical, 2021, 325, 112701.	4.1	8
79	Wavelet-based ECG signals compression using SPIHT technique and VKTP coder. , 2009, , .		7
80	An analytical drain current model for undoped GSDG MOSFETs including interfacial hot-carrier effects. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 907-910.	0.8	7
81	New junctionless RADFET dosimeter design for low-cost radiation monitoring applications. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 65-68.	0.8	7
82	Performance assessment of Gr/Si/Gr UV-photodetector: Design and optimization of graphene interdigitated electrodes. Superlattices and Microstructures, 2019, 132, 106166.	3.1	7
83	A Junctionless-Multigate Design to Improve the Electrical Performances for Deep Submicron ISFET-Based Sensors. Sensor Letters, 2011, 9, 2309-2311.	0.4	7
84	Performance analysis of broadband Mid-IR graphene-phototransistor using strained black phosphorus sensing gate: DFT-NEGF investigation. Superlattices and Microstructures, 2022, 163, 107187.	3.1	7
85	A Two-Dimensional Numerical Analysis of Subthreshold Performances for Double-Gate GaN-MESFETs. , 2010, , .		6
86	A two-dimensional semi-analytical analysis of the subthreshold-swing behavior including free carriers and interfacial traps effects for nanoscale double-gate MOSFETs. Microelectronics Journal, 2011, 42, 1391-1395.	2.0	6
87	Above 14% efficiency earth-abundant selenium solar cells by introducing gold nanoparticles and Titanium sub-layer. Optical Materials, 2018, 86, 24-31.	3.6	6
88	Effects of high temperature annealing in enhancing the optoelectronic performance of sputtered ITO/Ag/ITO transparent electrodes. Superlattices and Microstructures, 2019, 130, 361-368.	3.1	6
89	Two-dimensional analytical threshold voltage model for nanoscale graded channel gate stack DG MOSFETs. , 2009, , .		5
90	Enhancement of the absorbance figure of merit in amorphous-silicon p-i-n solar cell by using optimized intermediate metallic layers. Optik, 2017, 130, 473-480.	2.9	5

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91	Continuous semianalytical modeling of vertical surrounding-gate tunnel FET: analog/RF performance evaluation. Journal of Computational Electronics, 2018, 17, 724-735.	2.5	5
92	Enhanced performance of ultraviolet photodetector based on sputtered ZnO/Au/ZnO multilayer structure. Superlattices and Microstructures, 2019, 134, 106225.	3.1	5
93	Broadband spectral photodetector based on all-amorphous ZnO/Si heterostructure incorporating Ag intermediate thin-films. Optical Materials, 2022, 130, 112578.	3.6	5
94	An Explicit Continuous Analytical Model for Gate All Around (GAA) MOSFETs Including the Hot-Carrier Degradation Effects. Journal of Nanoscience and Nanotechnology, 2011, 11, 9316-9320.	0.9	4
95	RADFET dosimeter design for environment monitoring applications. , 2012, , .		4
96	Analytical modeling and optimization of new swimming microrobot design using genetic algorithm computations. , 2013, , .		4
97	Role of intermediate metallic sub-layers in improving the efficiency of kesterite solar cells: concept and optimization. Materials Research Express, 2018, 5, 036417.	1.6	4
98	Performance analysis of a new graphene based-phototransistor for ultra-sensitive infrared sensing applications. Optik, 2019, 176, 24-31.	2.9	4
99	Performance assessment of a new infrared phototransistor based on JL-TFET structure: Numerical study and circuit level investigation. Optik, 2020, 223, 165471.	2.9	4
100	Highly efficient and low-cost multispectral photodetector based on RF sputtered a-Si/Ti multilayer structure for Si-photonics applications. Journal of Alloys and Compounds, 2021, 876, 160176.	5.5	4
101	DFT-FDTD modeling of a new broadband mid-infrared IGZO thin-film phototransistor based on black phosphorus capping layer incorporating intermediate metallic film. Journal of Physics and Chemistry of Solids, 2022, 162, 110528.	4.0	4
102	An approach based on particle swarm computation to study the electron mobility in wurtzite GaN. Microelectronics Journal, 2009, 40, 357-359.	2.0	3
103	An accurate two dimensional threshold voltage model for nanoscale GCGS DG MOSFET including traps effects. , 2009, , .		3
104	Equivalent circuit modeling of SiGe/Si solar cell including interfacial defect effects. , 2013, , .		3
105	An optimized junctionless GAA MOSFET design based on multi-objective computation for high-performance ultra-low power devices. Journal of Semiconductors, 2014, 35, 074002.	3.7	3
106	Analytical investigation of SiGe solar cell including texture morphology effects. , 2015, , .		3
107	Thermal stability investigation of power GaN HEMT including self-heating effects. , 2017, , .		3
108	Role of metal layer in improving the UV-photodetector performance of TiO 2 /Metal/TiO 2 /Si structure. Journal of Luminescence, 2017, 191, 117-121.	3.1	3

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109	Approach for designing and modelling of nanoscale DG MOSFET devices using Kriging metamodelling technique. IET Circuits, Devices and Systems, 2017, 11, 618-623.	1.4	3
110	Role of non-uniform Ge concentration profile in enhancing the efficiency of thin-film SiGe/Si solar cells. Optik, 2018, 158, 192-198.	2.9	3
111	Enhanced optical and electrical performances of UV-phototransistor using graded band-gap ZnMgO photosensitive gate. Journal of Computational Electronics, 2018, 17, 1181-1190.	2.5	3
112	Effects of annealing temperature and ITO intermediate thin-layer on electrical proprieties of Au/p-Si structure deposited by RF magnetron sputtering. Superlattices and Microstructures, 2019, 128, 382-391.	3.1	3
113	Novel solar-blind ultraviolet photodetector based on inserting sputtered ITO ultrathin film for integrated silicon photonics platform. Superlattices and Microstructures, 2020, 143, 106564.	3.1	3
114	DFT study of X-doped (X= Cu, Ag, Au) boron nitride nanotubes for spintronic and optoelectronic applications. Optik, 2021, 225, 165863.	2.9	3
115	Absorption enhancement in amorphous Si by introducing RF sputtered Ti intermediate layers for photovoltaic applications. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2021, 269, 115152.	3.5	3
116	An analytical threshold voltage model for nanoscale GAA MOSFETs including effects of hot-carrier induced interface charges. , 2008, , .		2
117	Multi-objective-optimization-based approach to improve the electrical efficiency for organic solar cells. Journal of Computational Electronics, 2012, 11, 336-343.	2.5	2
118	Fuzzy-logic-based approach to study the electrons mobility in nanoscale Double Gate MOSFETs. IOP Conference Series: Materials Science and Engineering, 2012, 41, 012016.	0.6	2
119	Dual-Top-Gated Graphene field-effect transistors to improve the subthreshold swing for digital applications. , 2013, , .		2
120	ANFIS-based approach to studying subthreshold behavior including the traps effect for nanoscale thin-film DG MOSFETs. Journal of Semiconductors, 2013, 34, 084001.	3.7	2
121	Numerical investigation of nanoscale SiGe DG MOSFET with graded doping channel for improving reliability behavior. , 2014, , .		2
122	Investigation of GaAs/Si solar cell with interfacial defects using ANFIS technique. , 2015, , .		2
123	An Efficient RADFET Sensors Model Using Artificial Neural Network (ANN)<sup></sup>. Key Engineering Materials, 0, 644, 196-202.	0.4	2
124	Modeling of a new graphene-based smart sensor for high performance pH monitoring applications. , 2016, , .		2
125	Numerical investigation of nanoscale double-gate junctionless MOSFET with drain and source extensions including interfacial defects. Physica Status Solidi C: Current Topics in Solid State Physics, 2016, 13, 151-155.	0.8	2
126	Novel high-performance SOI junctionless FET-based phototransistor using channel doping engineering: Numerical investigation and sensitivity analysis. Optik, 2017, 138, 119-126.	2.9	2

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127	A Kriging framework for the efficient exploitation of the nanoscale junctioless DG MOSFETs including source/drain extensions and hot carrier effect. Materials Today: Proceedings, 2017, 4, 6804-6813.	1.8	2
128	A new smart nanoforce sensor based on suspended gate SOIMOSFET using carbon nanotube. Measurement: Journal of the International Measurement Confederation, 2018, 125, 232-242.	5.0	2
129	Simulation and analysis of Graphene-based nanoelectronic circuits using ANN method. Materials Today: Proceedings, 2018, 5, 15959-15967.	1.8	2
130	Plasmonic effect of metal nanoparticles on enhancing performance of transparent electrodes: a computational investigation. Journal of Computational Electronics, 2020, 19, 333-341.	2.5	2
131	Role of Graded Channel Doping Engineering in Improving Junctionless GAA MOSFET Performance for Ultra Low-Leakage Power Applications. Journal of Nanoelectronics and Optoelectronics, 2018, 13, 521-530.	0.5	2
132	Metaheuristic-based decision maker framework for the development of multispectral IGZO thin-film phototransistors. Journal of Science: Advanced Materials and Devices, 2022, 7, 100414.	3.1	2
133	A new dual-material (DM) gate design to improve the subthreshold behavior of deep submicron GaN-MESFETs. Physica Status Solidi C: Current Topics in Solid State Physics, 2012, 9, 1109-1113.	0.8	1
134	ANFIS-based computation to study the nanoscale circuit including the hot-carrier and quantum confinement effects. , 2013, , .		1
135	A new two-dimensional analytical subthreshold behavior model for submicron Triple Material Gate (TM) GaN MESFET. Journal of Computational Electronics, 2014, 13, 726-731.	2.5	1
136	Gate-engineering-based approach to improve the nanoscale DG MOSFET behavior against interfacial trap effects. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 77-80.	0.8	1
137	Investigation of analog/RF performance of gate-all-around junctionless MOSFET including interfacial defects. , 2015, , .		1
138	Performance analysis of swimming microrobot using GA, ABC and PSO based-optimization techniques. , 2015, , .		1
139	Numerical investigation of nanoscale SiGe DG MOSFET performance against the interfacial defects. Physica Status Solidi C: Current Topics in Solid State Physics, 2015, 12, 131-135.	0.8	1
140	ANFIS-based Approach to Predict the Degradation-related Ageing of Junctionless GAA MOSFET. Materials Today: Proceedings, 2018, 5, 15949-15958.	1.8	1
141	Elaboration and characterization of a new Schottky diode based on ZnO/Au/ZnO tri-layered structure. , 2019, , .		1
142	Fast and Accurate Simulation of Ultrascaled Carbon Nanotube Field-Effect Transistor Using ANN Sub-Modeling Technique. , 2019, , .		1
143	Determination of magnetic properties of a Ni/NiO/Ni multilayer: an ANFIS-based predictive technique. Applied Physics A: Materials Science and Processing, 2019, 125, 1.	2.3	1
144	Performance evaluation of nanoscale halo dual-material double gate SiGe MOSFET using 2-D numerical simulation. Materials Today: Proceedings, 2020, 20, 348-355.	1.8	1

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145	An optimized analytical electron mobility model based on genetic algorithm computation to study the GaN-based MOSFETs. , 2008, , .		0
146	An accurate threshold voltage model for nanoscale GCGS VSG MOSFET. , 2009, , .		0
147	A new PSO-based approach to study the nanoscale DG MOSFETs. , 2010, , .		0
148	ANFIS-based approach to study the subthreshold swing behavior for nanoscale DG MOSFETs including the interface trap effect. , 2012, , .		0
149	A fuzzy-logic-based approach to accurate modeling of a double gate MOSFET for nanoelectronic circuit design. Journal of Semiconductors, 2012, 33, 094001.	3.7	0
150	An optimised submicron Dual-Material gate (DM) GaAs-MESFETs design to improve the analog performance using multi-objective computation. , 2013, , .		0
151	Analytical models and optimization of novel swimming microrobot using ABC computation for biomedical applications. , 2014, , .		0
152	Impact of passive links configuration on swimming microrobot behavior. , 2014, , .		0
153	Multi-trench-based technique to improve amorphous SiGe thin-film solar cell performance. , 2014, , .		0
154	New phototransistor design to improve the electrical and optical performance using gate-engineering aspect. , 2015, , .		0
155	NEW DIELECTRIC MODULATED GRAPHENE (DMG) FETBASED SENSOR FOR HIGH-PERFORMANCE BIOMOLECULE SENSING APPLICATIONS. , 2015, , .		0
156	High efficiency amorphous triple-junction thin-film SiGe solar cells incorporating multi-trench region. , 2015, , .		0
157	Enhancement of the optical performance of ZnO thin-film using metallic nano-particles for optoelectronic applications. , 2016, , .		0
158	Improved ZnO/glass thin film UV photodetector performance based on introduction of intermediate metallic sub-layers. Materials Today: Proceedings, 2017, 4, 6930-6937.	1.8	0
159	Numerical Analysis of 4H-SiC MOSFET Design Including High-k Gate Dielectrics for Power electronic Applications. , 2018, , .		0
160	Device and Circuit Level Performance Analysis of a New Nanoscale DGJL MOSFET Design Using an Accurate Numerical Computation. , 2018, , .		0
161	A nonlocal approach for semianalytical modeling of a heterojunction vertical surrounding-gate tunnel FET. Journal of Computational Electronics, 2019, 18, 104-119.	2.5	0
162	Power efficiency enhancement in kesterite photovoltaic device by implementation of periodic grating nanowires. , 2019, , .		0

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163	Reliability Investigation of Nanoscale Junctionless GAA MOSFET Against Degradation-Related Ageing Effects. Journal of Nanoelectronics and Optoelectronics, 2018, 13, 1106-1113.	0.5	0
164	An ANFIS-based Computation to Study the Degradation-related Ageing effects in Nanoscale GAA-TFETs. , 2020, , .		0
165	Optimized Graphene Nanoribbon UV Phototransistor Based on ZnO Sensitive Gate for Optical Wireless Communications. , 2021, , .		0
166	Genetic Algorithm-based Approach to Enhance the Performance of Gate Engineered InGaZnO UV Thin-Film Phototransistor. , 2021, , .		0