Khalil Tamersit

List of Publications by Year
in descending order

39 papers	782 citations	361413 20 h-index	501196 28 g-index
39 all docs	39 docs citations	39 times ranked	291 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	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
3	Ultra-Compact Ternary Logic Gates Based on Negative Capacitance Carbon Nanotube FETs. IEEE Transactions on Circuits and Systems II: Express Briefs, 2021, 68, 2162-2166.	3.0	35
4	Sub-10Ânm junctionless carbon nanotube field-effect transistors with improved performance. AEU - International Journal of Electronics and Communications, 2020, 124, 153354.	2.9	33
5	Performance Assessment of a New Radiation Dosimeter Based on Carbon Nanotube Field-Effect Transistor: A Quantum Simulation Study. IEEE Sensors Journal, 2019, 19, 3314-3321.	4.7	31
6	Quantum simulation of a junctionless carbon nanotube field-effect transistor with binary metal alloy gate electrode. Superlattices and Microstructures, 2019, 128, 252-259.	3.1	31
7	A computational study of short-channel effects in double-gate junctionless graphene nanoribbon field-effect transistors. Journal of Computational Electronics, 2019, 18, 1214-1221.	2.5	30
8	An ultra-sensitive gas nanosensor based on asymmetric dual-gate graphene nanoribbon field-effect transistor: proposal and investigation. Journal of Computational Electronics, 2019, 18, 846-855.	2.5	29
9	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
10	Computational Study of p-n Carbon Nanotube Tunnel Field-Effect Transistor. IEEE Transactions on Electron Devices, 2020, 67, 704-710.	3.0	28
11	Performance enhancement of an ultra-scaled double-gate graphene nanoribbon tunnel field-effect transistor using channel doping engineering: Quantum simulation study. AEU - International Journal of Electronics and Communications, 2020, 122, 153287.	2.9	28
12	Computational Investigation of Negative Capacitance Coaxially Gated Carbon Nanotube Field-Effect Transistors. IEEE Transactions on Electron Devices, 2021, 68, 376-384.	3.0	27
13	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
14	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
15	Improving the performance of a junctionless carbon nanotube field-effect transistor using a split-gate. AEU - International Journal of Electronics and Communications, 2020, 115, 153035.	2.9	25
16	A new pressure microsensor based on dual-gate graphene field-effect transistor with a vertically movable top-gate: Proposal, analysis, and optimization. AEU - International Journal of Electronics and Communications, 2020, 124, 153346.	2.9	25
17	Leveraging Negative Capacitance CNTFETs for Image Processing: An Ultra-Efficient Ternary Image Edge Detection Hardware. IEEE Transactions on Circuits and Systems I: Regular Papers, 2021, 68, 5108-5119.	5.4	25
18	Boosting the performance of an ultrascaled carbon nanotube junctionless tunnel field-effect transistor using an ungated region: NEGF simulation. Journal of Computational Electronics, 2019, 18, 1222-1228.	2.5	24

#	Article	IF	Citations
19	A new ultra-scaled graphene nanoribbon junctionless tunneling field-effect transistor: proposal, quantum simulation, and analysis. Journal of Computational Electronics, 2020, 19, 170-176.	2.5	23
20	A novel band-to-band tunneling junctionless carbon nanotube field-effect transistor with lightly doped pocket: Proposal, assessment, and quantum transport analysis. Physica E: Low-Dimensional Systems and Nanostructures, 2021, 128, 114609.	2.7	23
21	Profound analysis on sensing performance of Nanogap SiGe source DM-TFET biosensor. Journal of Materials Science: Materials in Electronics, 2020, 31, 22699-22712.	2.2	22
22	Improved performance of nanoscale junctionless carbon nanotube tunneling FETs using dual-material source gate design: A quantum simulation study. AEU - International Journal of Electronics and Communications, 2020, 127, 153491.	2.9	21
23	Analog/RF performance assessment of ferroelectric junctionless carbon nanotube FETs: A quantum simulation study. Physica E: Low-Dimensional Systems and Nanostructures, 2021, 134, 114915.	2.7	17
24	New nanoscale band-to-band tunneling junctionless GNRFETs: potential high-performance devices for the ultrascaled regime. Journal of Computational Electronics, 2021, 20, 1147-1156.	2.5	16
25	Improved Switching Performance of Nanoscale p-i-n Carbon Nanotube Tunneling Field-Effect Transistors Using Metal-Ferroelectric-Metal Gating Approach. ECS Journal of Solid State Science and Technology, 2021, 10, 031004.	1.8	14
26	Improved performance of sub-10-nm band-to-band tunneling n-i-n graphene nanoribbon field-effect transistors using underlap engineering: A quantum simulation study. Journal of Physics and Chemistry of Solids, 2022, 160, 110312.	4.0	12
27	Synergy of Electrostatic and Chemical Doping to Improve the Performance of Junctionless Carbon Nanotube Tunneling Field-Effect Transistors: Ultrascaling, Energy-Efficiency, and High Switching Performance. Nanomaterials, 2022, 12, 462.	4.1	11
28	Role of Junctionless Mode in Improving the Photosensitivity of Sub-10 nm Carbon Nanotube/Nanoribbon Field-Effect Phototransistors: Quantum Simulation, Performance Assessment, and Comparison. Nanomaterials, 2022, 12, 1639.	4.1	10
29	Energy-Efficient Carbon Nanotube Field-Effect Phototransistors: Quantum Simulation, Device Physics, and Photosensitivity Analysis. IEEE Sensors Journal, 2022, 22, 288-296.	4.7	8
30	Dual-Top-Gated Graphene field-effect transistors to improve the subthreshold swing for digital applications. , 2013, , .		2
31	Modeling of a new graphene-based smart sensor for high performance pH monitoring applications. , 2016, , .		2
32	Atomistic Simulation of a New Label-Free DNA Nanosensor Based on Ballistic Carbon Nanotube Field-Effect Transistor. , 2019, , .		2
33	Numerical Study of a New Junctionless Tunneling Field-Effect Transistor Based on Graphene Nanoribbon. , 2019, , .		2
34	Fast and Accurate Simulation of Ultrascaled Carbon Nanotube Field-Effect Transistor Using ANN Sub-Modeling Technique. , 2019, , .		1
35	Role of Underlap Structure in Boosting the Performance of Band-to-Band Tunneling Carbon Nanotube FET with 5-nm Gate Length. , 2021, , .		1
36	Improving the On-Current of Junctionless Carbon Nanotube Tunneling FETs Using a Heavily n-Type Doped Pocket. , 2021, , .		1

#	Article	IF	Citations
37	NEW DIELECTRIC MODULATED GRAPHENE (DMG) FETBASED SENSOR FOR HIGH-PERFORMANCE BIOMOLECULE SENSING APPLICATIONS. , 2015, , .		0
38	Junctionless Carbon Nanotube Field-Effect Transistors as Gas Nanosensors for Low-Power Environment Monitoring Applications. , 2021, , .		0
39	Double-Gate Junctionless GNRFETs Operating in the BTBT Regime: A Simple Design with Improved Performance for Low-Power Applications. , 2021, , .		0