Khalil Tamersit

List of Publications by Year
in descending order

39	782	361413	501196
papers	citations	20 h-index	28 g-index

39	39	39	291
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	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
2	Energy-Efficient Carbon Nanotube Field-Effect Phototransistors: Quantum Simulation, Device Physics, and Photosensitivity Analysis. IEEE Sensors Journal, 2022, 22, 288-296.	4.7	8
3	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
4	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
5	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
6	Computational Investigation of Negative Capacitance Coaxially Gated Carbon Nanotube Field-Effect Transistors. IEEE Transactions on Electron Devices, 2021, 68, 376-384.	3.0	27
7	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
8	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
9	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
10	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
11	Role of Underlap Structure in Boosting the Performance of Band-to-Band Tunneling Carbon Nanotube FET with 5-nm Gate Length. , 2021, , .		1
12	Junctionless Carbon Nanotube Field-Effect Transistors as Gas Nanosensors for Low-Power Environment Monitoring Applications. , 2021, , .		0
13	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
14	Improving the On-Current of Junctionless Carbon Nanotube Tunneling FETs Using a Heavily n-Type Doped Pocket. , 2021, , .		1
15	Double-Gate Junctionless GNRFETs Operating in the BTBT Regime: A Simple Design with Improved Performance for Low-Power Applications. , 2021, , .		0
16	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
17	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
18	Computational Study of p-n Carbon Nanotube Tunnel Field-Effect Transistor. IEEE Transactions on Electron Devices, 2020, 67, 704-710.	3.0	28

#	Article	IF	Citations
19	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
20	Sub-10Ânm junctionless carbon nanotube field-effect transistors with improved performance. AEU - International Journal of Electronics and Communications, 2020, 124, 153354.	2.9	33
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	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
23	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
24	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
25	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
26	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
27	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
28	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
29	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
30	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
31	Atomistic Simulation of a New Label-Free DNA Nanosensor Based on Ballistic Carbon Nanotube Field-Effect Transistor. , 2019, , .		2
32	Fast and Accurate Simulation of Ultrascaled Carbon Nanotube Field-Effect Transistor Using ANN Sub-Modeling Technique. , 2019, , .		1
33	Numerical Study of a New Junctionless Tunneling Field-Effect Transistor Based on Graphene Nanoribbon. , 2019, , .		2
34	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
35	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
36	Modeling of a new graphene-based smart sensor for high performance pH monitoring applications. , 2016, , .		2

#	Article	IF	Citations
37	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
38	NEW DIELECTRIC MODULATED GRAPHENE (DMG) FETBASED SENSOR FOR HIGH-PERFORMANCE BIOMOLECULE SENSING APPLICATIONS. , 2015, , .		0
39	Dual-Top-Gated Graphene field-effect transistors to improve the subthreshold swing for digital applications. , 2013, , .		2