

# Mohammad Kazem Anvarifard

## List of Publications by Year in descending order

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46  
papers

644  
citations

516710

16  
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677142

22  
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all docs

46  
docs citations

46  
times ranked

273  
citing authors

#	ARTICLE	IF	CITATIONS
1	Improving the electrical characteristics of nanoscale triple-gate junctionless FinFET using gate oxide engineering. AEU - International Journal of Electronics and Communications, 2019, 108, 226-234.	2.9	53
2	Proper Electrostatic Modulation of Electric Field in a Reliable Nano-SOI With a Developed Channel. IEEE Transactions on Electron Devices, 2018, 65, 1653-1657.	3.0	34
3	A Nanoscale Modified band energy junctionless transistor with considerable progress on the electrical and frequency issue. Materials Science in Semiconductor Processing, 2020, 107, 104849.	4.0	34
4	Successfully Controlled Potential Distribution in a Novel High-Voltage and High-Frequency SOI MESFET. IEEE Transactions on Device and Materials Reliability, 2016, 16, 631-637.	2.0	28
5	SOI MOSFET with an insulator region (IR-SOI): A novel device for reliable nanoscale CMOS circuits. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2013, 178, 431-437.	3.5	27
6	Improvement of self-heating effect in a novel nanoscale SOI MOSFET with undoped region: A comprehensive investigation on DC and AC operations. Superlattices and Microstructures, 2013, 60, 561-579.	3.1	27
7	A novel graphene nanoribbon FET with an extra peak electric field (EFP-GNRFET) for enhancing the electrical performances. Physics Letters, Section A: General, Atomic and Solid State Physics, 2017, 381, 1379-1385.	2.1	27
8	Enhancement of a Nanoscale Novel Esaki Tunneling Diode Source TFET (ETDS-TFET) for Low-Voltage Operations. Silicon, 2019, 11, 2547-2556.	3.3	23
9	High Ability of a Reliable Novel TFET-Based Device in Detection of Biomolecule Specificities A Comprehensive Analysis on Sensing Performance. IEEE Sensors Journal, 2021, 21, 6880-6887.	4.7	23
10	Enhanced Critical Electrical Characteristics in a Nanoscale Low-Voltage SOI MOSFET With Dual Tunnel Diode. IEEE Transactions on Electron Devices, 2015, 62, 1672-1676.	3.0	22
11	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
12	Creation of a new high voltage device with capable of enhancing driving current and breakdown voltage. Materials Science in Semiconductor Processing, 2017, 60, 60-65.	4.0	21
13	A Guideline for Achieving the Best Electrical Performance with Strategy of Halo in Graphene Nanoribbon Field Effect Transistor. ECS Journal of Solid State Science and Technology, 2016, 5, M141-M147.	1.8	20
14	Increase in the scattering of electric field lines in a new high voltage SOI MESFET. Superlattices and Microstructures, 2016, 97, 15-27.	3.1	20
15	Stopping electric field extension in a modified nanostructure based on SOI technology - A comprehensive numerical study. Superlattices and Microstructures, 2017, 111, 206-220.	3.1	20
16	An impressive structure containing triple trenches for RF power performance (TT-SOI-MESFET). Journal of Computational Electronics, 2018, 17, 230-237.	2.5	20
17	Novel reduced body charge technique in reliable nanoscale SOI MOSFETs for suppressing the kink effect. Superlattices and Microstructures, 2014, 72, 111-125.	3.1	19
18	A novel nanoscale SOI MOSFET with Si embedded layer as an effective heat sink. International Journal of Electronics, 2015, 102, 1394-1406.	1.4	19

#	ARTICLE	IF	CITATIONS
19	Evidence for Enhanced Reliability in a Novel Nanoscale Partially-Depleted SOI MOSFET. IEEE Transactions on Device and Materials Reliability, 2015, 15, 536-542.	2.0	18
20	Improvement of Electrical Properties in a Novel Partially Depleted SOI MOSFET With Emphasizing on the Hysteresis Effect. IEEE Transactions on Electron Devices, 2013, 60, 3310-3317.	3.0	16
21	Benefitting from High- $\hat{I}^{\circ}$ Spacer Engineering in Ballistic Triple-Gate Junctionless FinFET- a Full Quantum Study. Silicon, 2020, 12, 2221-2228.	3.3	14
22	Symmetrical SOI MESFET with a dual cavity region (DCR-SOI MESFET) to promote high-voltage and radio-frequency performances. Superlattices and Microstructures, 2016, 98, 492-503.	3.1	13
23	Modeling a Double-Halo-Doping Carbon Nanotube FET in DC and AC Operations. ECS Journal of Solid State Science and Technology, 2018, 7, M209-M216.	1.8	13
24	A nanoscale- $\hat{I}^{\circ}$ modified junctionless with considerable progress on the electrical and thermal issue. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2019, 32, e2537.	1.9	11
25	Proposal of an Embedded Nanogap Biosensor by a Graphene Nanoribbon Field-Effect Transistor for Biological Samples Detection. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 1900879.	1.8	10
26	Simulation analysis of a novel dual-trench structure for a high power silicon-on-insulator metal- $\hat{I}^{\circ}$ semiconductor field effect transistor. Materials Science in Semiconductor Processing, 2014, 26, 506-511.	4.0	9
27	Energy Band Adjustment in a Reliable Novel Charge Plasma SiGe Source TFET to Intensify the BTBT Rate. IEEE Transactions on Electron Devices, 2021, 68, 5284-5290.	3.0	9
28	A novel SOI MESFET by $\hat{I}^{\circ}$ -shaped gate for improving the driving current. Journal of Computational Electronics, 2014, 13, 562-568.	2.5	8
29	Voltage difference engineering in SOI MOSFETs: A novel side gate device with improved electrical performance. Materials Science in Semiconductor Processing, 2013, 16, 1672-1678.	4.0	7
30	Accurate analytical drain current model for a nanoscale fully-depleted SOI MOSFET. Solid-State Electronics, 2015, 103, 154-161.	1.4	7
31	Label-free detection of DNA by a dielectric modulated armchair-graphene nanoribbon FET based biosensor in a dual-nanogap setup. Materials Science and Engineering C, 2020, 117, 111293.	7.3	7
32	A novel nanoscale low-voltage SOI MOSFET with dual tunnel diode (DTD-SOI): Investigation and fundamental physics. Physica E: Low-Dimensional Systems and Nanostructures, 2015, 70, 101-107.	2.7	6
33	An accurate compact model to extract the important physical parameters of an experimental nanoscale short-channel SOI MOSFET. Journal of Computational Electronics, 2019, 18, 46-52.	2.5	5
34	Graphene Nanoribbon FET Compact Model on the Basis of ANN Configuration Applicable in Different Spice Levels. ECS Journal of Solid State Science and Technology, 2021, 10, 031008.	1.8	5
35	Creation of Step-Shaped Energy Band in a Novel Double-Gate GNFET to Diminish Ambipolar Conduction. IEEE Transactions on Electron Devices, 2021, 68, 2549-2555.	3.0	5
36	A Theoretical Study on Charge Transfer of Twisted T-Graphene Nanoribbon Surface. ECS Journal of Solid State Science and Technology, 2020, 9, 021001.	1.8	4

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37	Two-Dimensional Analytical Modeling of Fully Depleted Short-Channel DG SOI MOSFET. , 2009, , .		3
38	Two-Dimensional Analytical Modeling of Fully Depleted Short-Channel Dual-Gate Silicon-on-Insulator Metal Oxide Semiconductor Field Effect Transistor. Japanese Journal of Applied Physics, 2009, 48, 104501.	1.5	3
39	Impact of Split Gate in a Novel SOI MOSFET (SPG SOI) for Reduction of Short-Channel Effects: Analytical Modeling and Simulation. Journal of Engineering (United States), 2013, 2013, 1-6.	1.0	2
40	Junctionless Transistor with Pulsed Shaped Dielectric (PSD-JNL): An Absorbing Structure for Nanoscale Aims. ECS Journal of Solid State Science and Technology, 2019, 8, N5-N12.	1.8	2
41	Single Gate Graphene Nanoribbon-on-Insulator (GNROI) FET as a Novel Strategy to Enhance Electrical Performance-Numerically RF and DC Characteristics Extraction. ECS Journal of Solid State Science and Technology, 2020, 9, 061025.	1.8	2
42	A Ballistic Transport Nanodevice Based on Graphene Nanoribbon FET by Enhanced Productivity for Both Low-Voltage and Radio-Frequency Scopes. ECS Journal of Solid State Science and Technology, 2022, 11, 061008.	1.8	2
43	Investigation of Gate Length Effect on SOI-MOSFET Operation. , 2009, , .		1
44	Performance Improvement of SiGe Based Silicon-On-Insulator Transistor Using Vertically Graded Channel Approach. Silicon, 2019, 11, 3021-3030.	3.3	1
45	Introduce of a New Double Hetero FinFET Based on Charge-Plasma Concept. Silicon, 2022, 14, 1775-1785.	3.3	1
46	Non-Linearity and RF Intermodulation Distortion Check of Ultrascale GNR FET Device Using NEGF Technique to Achieve the Highest Reliable Performance. ECS Journal of Solid State Science and Technology, 2021, 10, 101002.	1.8	1