

Morteza Fathipour

List of Publications by Year in descending order

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76
papers

710
citations

623188

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642321

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76
all docs

76
docs citations

76
times ranked

719
citing authors

#	ARTICLE	IF	CITATIONS
1	A Numerical Study of Line-Edge Roughness Scattering in Graphene Nanoribbons. IEEE Transactions on Electron Devices, 2012, 59, 433-440.	1.6	58
2	Improvement of electrical performance in junctionless nanowire TFET using hetero-gate-dielectric. Materials Science in Semiconductor Processing, 2017, 63, 142-152.	1.9	52
3	A first-principles study on the effect of biaxial strain on the ultimate performance of monolayer MoS ₂ -based double gate field effect transistor. Journal of Applied Physics, 2013, 113, .	1.1	51
4	A New Partial-SOI LDMOSFET With Modified Electric Field for Breakdown Voltage Improvement. IEEE Transactions on Device and Materials Reliability, 2009, 9, 449-453.	1.5	45
5	Tuning electronic, magnetic, and transport properties of blue phosphorene by substitutional doping: a first-principles study. Journal of Computational Electronics, 2018, 17, 499-513.	1.3	37
6	An Analytical Model for Line-Edge Roughness Limited Mobility of Graphene Nanoribbons. IEEE Transactions on Electron Devices, 2011, 58, 3725-3735.	1.6	34
7	Negative Capacitance Double-Gate Junctionless FETs: A Charge-Based Modeling Investigation of Swing, Overdrive and Short Channel Effect. IEEE Journal of the Electron Devices Society, 2020, 8, 939-947.	1.2	31
8	Optical properties of armchair graphene nanoribbons embedded in hexagonal boron nitride lattices. Journal of Applied Physics, 2012, 111, 093512.	1.1	24
9	Effect of tip mass on frequency response and sensitivity of AFM cantilever in liquid. Micron, 2015, 70, 50-54.	1.1	22
10	A single-gate SOI nanosheet junctionless transistor at 10-nm gate length: design guidelines and comparison with the conventional SOI FinFET. Journal of Computational Electronics, 2020, 19, 631-639.	1.3	20
11	Tunable Bandgap in Bilayer Armchair Graphene Nanoribbons: Concurrent Influence of Electric Field and Uniaxial Strain. IEEE Transactions on Electron Devices, 2013, 60, 2464-2470.	1.6	19
12	An Analytical Drain Current Model for the Cylindrical Channel Gate-All-Around Heterojunction Tunnel FETs. IEEE Transactions on Electron Devices, 2019, 66, 3646-3651.	1.6	18
13	Numerical Study of Graphene Superlattice-Based Photodetectors. IEEE Transactions on Electron Devices, 2015, 62, 593-600.	1.6	17
14	Modeling Interface Charge Traps in Junctionless FETs, Including Temperature Effects. IEEE Transactions on Electron Devices, 2019, 66, 4653-4659.	1.6	17
15	Dielectrophoresis-based microfluidic platform to sort micro-particles in continuous flow. Microsystem Technologies, 2020, 26, 751-763.	1.2	17
16	SILICON ON RAISED INSULATOR FIELD EFFECT DIODE (SORI-FED) FOR ALLEVIATING SCALING PROBLEM IN FED. International Journal of Modern Physics B, 2014, 28, 1450038.	1.0	14
17	Adsorption characteristics of epigenetically modified DNA nucleobases on single-layer MoS ₂ : A first-principles study. Journal of Applied Physics, 2018, 124, 134501.	1.1	14
18	Cell properties assessment using optimized dielectrophoresis-based cell stretching and lumped mechanical modeling. Scientific Reports, 2021, 11, 2341.	1.6	13

#	ARTICLE	IF	CITATIONS
19	A comparison study of the effects of supply voltage and temperature on the stability and performance of CNFET and nanoscale Si-MOSFET SRAMs. , 2009, , .		12
20	A comparative study of NEGF and DDMS models in the GAA silicon nanowire transistor. International Journal of Electronics, 2012, 99, 1299-1307.	0.9	12
21	Stable, low power and high performance SRAM based on CNFET. , 2009, , .		11
22	Design and analysis of hairpin piezoresistive pressure sensor with improved linearity using square and circular diaphragms. Micro and Nano Letters, 2018, 13, 1046-1051.	0.6	10
23	Unravelling the physisorption characteristics of H ₂ S molecule on biaxially strained single-layer MoS ₂ . Nanoscale Advances, 2019, 1, 3452-3462.	2.2	10
24	Asymmetric junctionless nanowire TFET with built-in n^+ + source pocket emphasizing on energy band modification. Journal of Computational Electronics, 2016, 15, 1297-1307.	1.3	9
25	Analytical models of approximations for wave functions and energy dispersion in zigzag graphene nanoribbons. Journal of Applied Physics, 2012, 111, 074318.	1.1	8
26	Analysis of power gating in different hierarchical levels of 2MB cache, considering variation. International Journal of Electronics, 2015, 102, 1594-1608.	0.9	8
27	Fabrication of Ag-modified nanocone frustum arrays with controlled shape as active substrates for surface-enhanced Raman scattering. Journal of Raman Spectroscopy, 2019, 50, 1416-1428.	1.2	8
28	Behavior of the dielectric function of monolayer MoS_2 under Uniaxial Strain. Journal of Computational Electronics, 2016, 15, 1388-1392.	1.3	7
29	A Numerical Analysis of Electronic and Optical Properties of the Zigzag MoS_2 Nanoribbon Under Uniaxial Strain. IEEE Transactions on Electron Devices, 2018, 65, 1988-1994.	1.6	7
30	A novel nanoscale tunnel FET structure for increasing on/off current ratio. , 2008, , .		6
31	Efficient paradigm to enhance particle separation in deterministic lateral displacement arrays. SN Applied Sciences, 2019, 1, 1.	1.5	6
32	A novel numerical modeling paradigm for bio particle tracing in non-inertial microfluidics devices. Microsystem Technologies, 2019, 25, 3703-3711.	1.2	6
33	A comparative study on the application of single-layer MoS ₂ and WS ₂ for probing methylated and mutated nucleobases: a vdW-DFT study. Applied Surface Science, 2020, 501, 143892.	3.1	6
34	Designing a magnetic inductive micro-electrode for virus monitoring: modelling and feasibility for hepatitis B virus. Mikrochimica Acta, 2020, 187, 463.	2.5	6
35	Reducing breakdown voltages in impact ionization Metal-Oxide-Semiconductor (I-MOS) devices using hetero structure. Optoelectronic and Microelectronic Materials and Devices (COMMAD), Conference on, 2008, , .	0.0	5
36	Band structure effect on the electron current oscillation in ultra-scaled GaSb Schottky MOSFET: tight-binding approach. Journal of Computational Electronics, 2014, 13, 375-382.	1.3	5

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37	An air-breathing microfluidic fuel cell with a finny anode. Russian Journal of Electrochemistry, 2014, 50, 162-169.	0.3	5
38	Analytical and numerical evaluation of electron-injection detector optimized for SWIR photon detection. Journal of Applied Physics, 2017, 121, .	1.1	5
39	A first-principles study on DNA sequencing using graphene quantum dot. European Physical Journal B, 2018, 91, 1.	0.6	5
40	The effect of structural defects on the electron transport of MoS2 nanoribbons based on density functional theory. Journal of Theoretical and Applied Physics, 2019, 13, 55-62.	1.4	5
41	Semiconducting Phase and Anisotropic Properties in Borophene via Chemical Surface Functionalization. Journal of Physical Chemistry C, 2020, 124, 5807-5816.	1.5	5
42	Design of an ultra-low power 32-bit adder operating at subthreshold voltages in 45-nm FinFET. , 2013, , .		4
43	A new source heterojunction strained channel structure for ballistic gate all around nanowire transistor. Journal of Computational Electronics, 2014, 13, 170-179.	1.3	4
44	Near-room-temperature spin caloritronics in a magnetized and defective zigzag MoS2 nanoribbon. Journal of Computational Electronics, 2020, 19, 137-146.	1.3	4
45	Asymmetric gate oxide thickness technology for reduction of Gate Induced Drain Leakage current in nanoscale single gate SOI MOSFET. Optoelectronic and Microelectronic Materials and Devices (COMMAD), Conference on, 2008, , .	0.0	3
46	Using low-k oxide for reduction of leakage current in Double Gate Tunnel FET. , 2009, , .		3
47	A Computational Study on the Electronic Properties of Armchair Graphene Nanoribbons Confined by Boron Nitride. Japanese Journal of Applied Physics, 2012, 51, 035101.	0.8	3
48	Design of a hybrid closed loop control system for a MEMS accelerometer using backstepping principle. , 2007, , .		2
49	Investigation of vertical scaling on breakdown voltage and presentation of analytical model for electric field distribution in SOI RESURF LDMOSFETs. , 2009, , .		2
50	Effect of Tip Mass on Modal Flexural Sensitivity of Rectangular AFM Cantilevers to Surface Stiffness Variations. Arabian Journal for Science and Engineering, 2014, 39, 1393-1397.	1.1	2
51	Multi-objective optimization of microfluidic fuel cell. Russian Journal of Electrochemistry, 2014, 50, 561-568.	0.3	2
52	A Novel impact Ionization MOS (I-MOS) structure using a silicon-germanium/silicon heterostructure channel. , 2008, , .		1
53	A novel 6H-SiC UMOSFET_ACCUFET with low specific on-resistance and peak electric field. Optoelectronic and Microelectronic Materials and Devices (COMMAD), Conference on, 2008, , .	0.0	1
54	A novel 4H-SiC UMOSFET_ACCUFET with large blocking voltage. , 2009, , .		1

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55	Design of a feedforward controller for AFM nanopositioning based on neural network control theory. , 2009, , .		1
56	New challenges on leakage current improvement in tunnel FET by using low-k oxide. , 2009, , .		1
57	A novel structure for improvement the I_{on}/I_{off} ratio in nano-scale double gate source-heterojunction-MOS-transistor. , 2009, , .		1
58	Nanoscale Ultra Thin Body-Silicon-On-Insulator field effect transistor with step BOX: Self-heating		1
59	Numerical analysis of ballistic ultrathin graphene nanoribbon field effect transistors. , 2012, , .		1
60	Bottom-up design of a high performance ultra-low power DFT utilizing multiple- V_{DD} , multiple- V_{th} and gate sizing. , 2013, , .		1
61	Performance assessment of nanoscale Schottky MOSFET as resonant tunnelling device: Non-equilibrium Green's function formalism. Pramana - Journal of Physics, 2013, 81, 511-520.	0.9	1
62	Effect of electrolyte concentration and symmetry on the heterogeneous surface charge in an electrically gated nanochannel. SN Applied Sciences, 2020, 2, 1.	1.5	1
63	A new methodology for substrate network resistance extraction in RFCMOS. , 2004, , .		0
64	A compact physical model for subthreshold current in nanoscale FD/SOI MOSFETs. , 2009, , .		0
65	Numerical study of scaling issues of C-CNTFETs. , 2009, , .		0
66	Novel techniques for off-state current components reduction in double gate source-heterojunction-MOS-transistor. , 2009, , .		0
67	Employing work function engineering and asymmetric gate oxide in nano-scale source-heterojunction-MOS-transistor. , 2009, , .		0
68	Improving performance in single field plate power High Electron Mobility Transistors (HEMTs) based on AlGaIn/GaN. , 2009, , .		0
69	Low-field acoustic phonon limited mobility in GNRs. , 2011, , .		0
70	Compact model for the electronic properties of edge-disordered graphene nanoribbons. , 2011, , .		0
71	ON THE ROBUSTNESS OF MAGNETISM IN ZIGZAG GRAPHENE NANORIBBONS. Modern Physics Letters B, 2013, 27, 1350111.	1.0	0
72	Magneto-induced tunability of thermo-spin current in deformed zigzag graphene nanoribbons. Journal of Applied Physics, 2015, 118, .	1.1	0

#	ARTICLE	IF	CITATIONS
73	Strain engineering of low-buckled two-dimensional materials based on tight binding approach. , 2015, , .		0
74	Investigation of high- and low- ϵ ; Gate dielectrics in tuning of graphene-loaded THz antennas. , 2015, , .		0
75	The effect of uniaxial strain on the electronic structure of monolayer MoS ₂ . , 2016, , .		0
76	Simulation and fabrication of an integrating well-aligned silicon nanowires substrate for trapping circulating tumor cells labeled with Fe ₃ O ₄ nanoparticles in a microfluidic device. Biolmpacts, 2022, , .	0.7	0