

Cristina Medina Bail n

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4445076/publications.pdf>

Version: 2024-02-01

57
papers

302
citations

1040056

9
h-index

1058476

14
g-index

57
all docs

57
docs citations

57
times ranked

165
citing authors

#	ARTICLE	IF	CITATIONS
1	Analysis of the Reformulated Source to Drain Tunneling Probability for Improving the Accuracy of a Multisubband Ensemble Monte Carlo Simulator. <i>Micromachines</i> , 2022, 13, 533.	2.9	0
2	Statistical device simulations of III-V nanowire resonant tunneling diodes as physical unclonable functions source. <i>Solid-State Electronics</i> , 2022, 194, 108339.	1.4	1
3	Self-Consistent Enhanced S/D Tunneling Implementation in a 2D MS-EMC Nanodevice Simulator. <i>Micromachines</i> , 2021, 12, 601.	2.9	1
4	Simulation and Modeling of Novel Electronic Device Architectures with NESS (Nano-Electronic) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 62.	2.9	8
5	KMC-based POM flash cell optimization and time-dependent performance investigation. <i>Semiconductor Science and Technology</i> , 2021, 36, 075021.	2.0	1
6	Comprehensive Analytical Modelling of an Absolute pH Sensor. <i>Sensors</i> , 2021, 21, 5190.	3.8	9
7	Full-band quantum transport simulation in the presence of hole-phonon interactions using a mode-space $k\text{-p}$ approach. <i>Nanotechnology</i> , 2021, 32, 020001.	2.6	2
8	TCAD Simulations of High-Aspect-Ratio Nano-biosensor for Label-Free Sensing Application. , 2021, , .		1
9	TCAD Simulation of Novel Semiconductor Devices. , 2021, , .		2
10	Density Gradient Based Quantum-Corrected 3D Drift-Diffusion Simulator for Nanoscale MOSFETs. , 2021, , .		4
11	Nano-electronic Simulation Software (NESS): a flexible nano-device simulation platform. <i>Journal of Computational Electronics</i> , 2020, 19, 1031-1046.	2.5	20
12	Enhanced Capabilities of the Nano-Electronic Simulation Software (NESS). , 2020, , .		5
13	A Combined First Principles and Kinetic Monte Carlo study of Polyoxometalate based Molecular Memory Devices. , 2020, , .		2
14	Nano-Electronic Simulation Software (NESS): A Novel Open-Source TCAD Simulation Environment. <i>Journal of Microelectronic Manufacturing</i> , 2020, 3, 1-8.	0.2	4
15	Quantum Enhancement of a S/D Tunneling Model in a 2D MS-EMC Nanodevice Simulator: NEGF Comparison and Impact of Effective Mass Variation. <i>Micromachines</i> , 2020, 11, 204.	2.9	7
16	Efficient Implementation of S/D tunneling in 2D MS-EMC of Nanoelectronic Devices Including the Thickness Dependent Effective Mass. , 2020, , .		0
17	Multi-Subband Ensemble Monte Carlo Simulator for Nanodevices in the End of the Roadmap. <i>Lecture Notes in Computer Science</i> , 2020, , 438-445.	1.3	2
18	Techniques for Statistical Enhancement in a 2D Multi-subband Ensemble Monte Carlo Nanodevice Simulator. <i>Lecture Notes in Computer Science</i> , 2020, , 411-419.	1.3	0

#	ARTICLE	IF	CITATIONS
19	Simulation of gated GaAs-AlGaAs resonant tunneling diodes for tunable terahertz communication applications. , 2020, , .		1
20	Efficient Coupled-mode space based Non-Equilibrium Green's Function Approach for Modeling Quantum Transport and Variability in Vertically Stacked SiNW FETs. , 2019, , .		0
21	Scaling-aware TCAD Parameter Extraction Methodology for Mobility Prediction in Tri-gate Nanowire Transistors. , 2019, , .		0
22	Surface Roughness Scattering in NEGF using self-energy formulation. , 2019, , .		3
23	Mobility of Circular and Elliptical Si Nanowire Transistors Using a Multi-Subband 1D Formalism. IEEE Electron Device Letters, 2019, 40, 1571-1574.	3.9	15
24	Simulation of the Impact of Ionized Impurity Scattering on the Total Mobility in Si Nanowire Transistors. Materials, 2019, 12, 124.	2.9	21
25	Comprehensive Study of Cross-Section Dependent Effective Masses for Silicon Based Gate-All-Around Transistors. Applied Sciences (Switzerland), 2019, 9, 1895.	2.5	15
26	Impact of Effective Mass on Transport Properties and Direct Source-to-Drain Tunneling in Ultrascaled Double Gate Devices: a 2D Multi-Subband Ensemble Monte Carlo study. , 2019, , .		0
27	Multisubband Ensemble Monte Carlo Analysis of Tunneling Leakage Mechanisms in Ultrascaled FDSOI, DGSOI, and FinFET Devices. IEEE Transactions on Electron Devices, 2019, 66, 1145-1152.	3.0	12
28	Schrödinger Equation Based Quantum Corrections in Drift-Diffusion: A Multiscale Approach. , 2019, , .		2
29	Impact of the Trap Attributes on the Gate Leakage Mechanisms in a 2D MS-EMC Nanodevice Simulator. Lecture Notes in Computer Science, 2019, , 273-280.	1.3	3
30	Analysis of the Heterogate Electron-Hole Bilayer Tunneling Field-Effect Transistor With Partially Doped Channels: Effects on Tunneling Distance Modulation and Occupancy Probabilities. IEEE Transactions on Electron Devices, 2018, 65, 339-346.	3.0	4
31	Confinement-induced InAs/GaSb heterojunction electron-hole bilayer tunneling field-effect transistor. Applied Physics Letters, 2018, 112, .	3.3	20
32	Efficient Two-Band based Non-Equilibrium Green's Function Scheme for Modeling Tunneling Nano-Devices. , 2018, , .		4
33	Variability Predictions for the Next Technology Generations of n-type SixGe1-x Nanowire MOSFETs. Micromachines, 2018, 9, 643.	2.9	7
34	Modelling on Aging Induced Time Dependent Variability of Z2FET for Memory Applications. , 2018, , .		0
35	Nanowire FETs. , 2018, , .		0
36	MS-EMC vs. NEGF: A comparative study accounting for transport quantum corrections. , 2018, , .		9

#	ARTICLE	IF	CITATIONS
37	The Impact of Dopant Diffusion on Random Dopant Fluctuation in Si Nanowire FETs: A Quantum Transport Study. , 2018, , .		3
38	NESS: new flexible Nano-Electronic Simulation Software. , 2018, , .		20
39	Impact of the Effective Mass on the Mobility in Si Nanowire Transistors. , 2018, , .		4
40	Quantum Transport Investigation of Threshold Voltage Variability in Sub-10 nm JunctionlessSi Nanowire FETs. , 2018, , .		3
41	Impact of Strain on S/D tunneling in FinFETs: a MS-EMC study. , 2018, , .		0
42	Source-to-Drain Tunneling Analysis in FDSOI, DGSOI, and FinFET Devices by Means of Multisubband Ensemble Monte Carlo. IEEE Transactions on Electron Devices, 2018, 65, 4740-4746.	3.0	11
43	Gate Leakage Tunneling Impact on the InAs/GaSb Heterojunction Electron-Hole Bilayer Tunneling Field-Effect Transistor. IEEE Transactions on Electron Devices, 2018, 65, 4679-4686.	3.0	8
44	Impact of electron effective mass variation on the performance of InAs/GaSb Electron-Hole Bilayer Tunneling Field-Effect Transistor. , 2018, , .		4
45	Study of the 1D Scattering Mechanisms' Impact on the Mobility in Si Nanowire Transistors. , 2018, , .		6
46	Random Dopant-Induced Variability in Si-InAs Nanowire Tunnel FETs: A Quantum Transport Simulation Study. IEEE Electron Device Letters, 2018, 39, 1473-1476.	3.9	11
47	Confinement orientation effects in S/D tunneling. Solid-State Electronics, 2017, 128, 48-53.	1.4	5
48	Implementation of Band-to-Band Tunneling Phenomena in a Multisubband Ensemble Monte Carlo Simulator: Application to Silicon TFETs. IEEE Transactions on Electron Devices, 2017, 64, 3084-3091.	3.0	9
49	Assessment of gate leakage mechanism utilizing Multi-Subband Ensemble Monte Carlo. , 2017, , .		4
50	Multi-subband ensemble Monte Carlo study of tunneling leakage mechanisms. , 2017, , .		3
51	Confinement orientation effects in S/D tunneling. , 2016, , .		2
52	Multi-subband ensemble Monte Carlo study of band-to-band tunneling in silicon-based TFETs. , 2016, , .		2
53	Impact of non uniform strain configuration on transport properties for FD14+ devices. Solid-State Electronics, 2016, 115, 232-236.	1.4	2
54	Impact of non uniform strain configuration on transport properties for FD14+ devices. , 2015, , .		0

#	ARTICLE	IF	CITATIONS
55	Sub-22nm scaling of UTB2SOI devices for Multi-V _t applications. , 2015, , .		0
56	Assessment of pseudo-bilayer structures in the heterogate germanium electron-hole bilayer tunnel field-effect transistor. Applied Physics Letters, 2015, 106, .	3.3	14
57	Impact of S/D tunneling in ultrascaled devices, a Multi-Subband Ensemble Monte Carlo study. , 2015, , .		6