Hamilton Carrillo-NuÃ±ez

List of Publications by Year
in descending order

28 papers	281 citations	1163117 8 h-index	996975 15 g-index
28 all docs	28 docs citations	28 times ranked	228 citing authors

#	Article	IF	Citations
1	Quantum simulation investigation of work-function variation in nanowire tunnel FETs. Nanotechnology, 2021, 32, 150001.	2.6	3
2	Full-band quantum transport simulation in the presence of hole-phonon interactions using a mode-space kÂ·p approach. Nanotechnology, 2021, 32, 020001.	2.6	2
3	Nano-electronic Simulation Software (NESS): a flexible nano-device simulation platform. Journal of Computational Electronics, 2020, 19, 1031-1046.	2.5	20
4	Enhanced Capabilities of the Nano-Electronic Simulation Software (NESS). , 2020, , .		5
5	Quantum Enhancement of a S/D Tunneling Model in a 2D MS-EMC Nanodevice Simulator: NEGF Comparison and Impact of Effective Mass Variation. Micromachines, 2020, 11, 204.	2.9	7
6	Machine Learning Approach for Predicting the Effect of Statistical Variability in Si Junctionless Nanowire Transistors. IEEE Electron Device Letters, 2019, 40, 1366-1369.	3.9	77
7	Quantum Mechanical Simulations of the Impact of Surface Roughness on Nanowire TFET performance. , 2019, , .		3
8	Efficient Coupled-mode space based Non-Equilibrium Greenâ€™s Function Approach for Modeling Quantum Transport and Variability in Vertically Stacked SiNW FETs. , 2019, , .		0
9	Surface Roughness Scattering in NEGF using self-energy formulation. , 2019, , .		3
10	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
11	Simulation of the Impact of Ionized Impurity Scattering on the Total Mobility in Si Nanowire Transistors. Materials, 2019, 12, 124.	2.9	21
12	An Accurate Analytical Model for Tunnel FET Output Characteristics. IEEE Electron Device Letters, 2019, 40, 1001-1004.	3.9	6
13	Comprehensive Study of Cross-Section Dependent Effective Masses for Silicon Based Gate-All-Around Transistors. Applied Sciences (Switzerland), 2019, 9, 1895.	2.5	15
14	Impact of Randomly Distributed Dopants on $Omega$ -Gate Junctionless Silicon Nanowire Transistors. IEEE Transactions on Electron Devices, 2018, 65, 1692-1698.	3.0	7
15	Efficient Two-Band based Non-Equilibrium Green's Function Scheme for Modeling Tunneling Nano-Devices. , 2018, , .		4
16	Variability Predictions for the Next Technology Generations of n-type SixGe1â^'x Nanowire MOSFETs. Micromachines, 2018, 9, 643.	2.9	7
17	Nanowire FETs. , 2018, , .		0
18	The Impact of Dopant Diffusion on Random Dopant Fluctuation in Si Nanowire FETs: A Quantum Transport Study. , 2018, , .		3

#	Article	IF	Citations
19	NESS: new flexible Nano-Electronic Simulation Software. , 2018, , .		20
20	Impact of the Effective Mass on the Mobility in Si Nanowire Transistors. , 2018, , .		4
21	Quantum Transport Investigation of Threshold Voltage Variability in Sub-10 nm JunctionlessSi Nanowire FETs. , 2018, , .		3
22	Study of the 1D Scattering Mechanisms' Impact on the Mobility in Si Nanowire Transistors. , 2018, , .		6
23	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
24	Understanding Electromigration in Cu-CNT Composite Interconnects: A Multiscale Electrothermal Simulation Study. IEEE Transactions on Electron Devices, 2018, 65, 3884-3892.	3.0	10
25	Comparison of junctionless and inversion-mode p-type metal-oxide-semiconductor field-effect transistors in presence of hole-phonon interactions. Journal of Applied Physics, 2016, 119, 044509.	2.5	0
26	Effect of surface roughness and phonon scattering on extremely narrow InAs-Si Nanowire TFETs. , 2016, , .		7
27	Design of High-Performance InAsâ€“Si Heterojunction 2Dâ€“2D Tunnel FETs With Lateral and Vertical Tunneling Paths. IEEE Transactions on Electron Devices, 2016, 63, 5041-5047.	3.0	6
28	Analysis of InAs-Si heterojunction nanowire tunnel FETs: Extreme confinement vs. bulk. Solid-State Electronics, 2015, 113, 61-67.	1.4	16