

Hamilton Carrillo-Nuñez

List of Publications by Year in descending order

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228
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	Simulation of the Impact of Ionized Impurity Scattering on the Total Mobility in Si Nanowire Transistors. Materials, 2019, 12, 124.	2.9	21
3	NESS: new flexible Nano-Electronic Simulation Software. , 2018, , .		20
4	Nano-electronic Simulation Software (NESS): a flexible nano-device simulation platform. Journal of Computational Electronics, 2020, 19, 1031-1046.	2.5	20
5	Analysis of InAs-Si heterojunction nanowire tunnel FETs: Extreme confinement vs. bulk. Solid-State Electronics, 2015, 113, 61-67.	1.4	16
6	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
7	Comprehensive Study of Cross-Section Dependent Effective Masses for Silicon Based Gate-All-Around Transistors. Applied Sciences (Switzerland), 2019, 9, 1895.	2.5	15
8	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
9	Understanding Electromigration in Cu-CNT Composite Interconnects: A Multiscale Electrothermal Simulation Study. IEEE Transactions on Electron Devices, 2018, 65, 3884-3892.	3.0	10
10	Effect of surface roughness and phonon scattering on extremely narrow InAs-Si Nanowire TFETs. , 2016, , .		7
11	Impact of Randomly Distributed Dopants on Ω -Gate Junctionless Silicon Nanowire Transistors. IEEE Transactions on Electron Devices, 2018, 65, 1692-1698.	3.0	7
12	Variability Predictions for the Next Technology Generations of n-type SixGe1-x Nanowire MOSFETs. Micromachines, 2018, 9, 643.	2.9	7
13	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
14	Design of High-Performance InAs-Si Heterojunction 2D Tunnel FETs With Lateral and Vertical Tunneling Paths. IEEE Transactions on Electron Devices, 2016, 63, 5041-5047.	3.0	6
15	Study of the 1D Scattering Mechanisms' Impact on the Mobility in Si Nanowire Transistors. , 2018, , .		6
16	An Accurate Analytical Model for Tunnel FET Output Characteristics. IEEE Electron Device Letters, 2019, 40, 1001-1004.	3.9	6
17	Enhanced Capabilities of the Nano-Electronic Simulation Software (NESS). , 2020, , .		5
18	Efficient Two-Band based Non-Equilibrium Green's Function Scheme for Modeling Tunneling Nano-Devices. , 2018, , .		4

#	ARTICLE	IF	CITATIONS
19	Impact of the Effective Mass on the Mobility in Si Nanowire Transistors. , 2018, , .		4
20	The Impact of Dopant Diffusion on Random Dopant Fluctuation in Si Nanowire FETs: A Quantum Transport Study. , 2018, , .		3
21	Quantum Transport Investigation of Threshold Voltage Variability in Sub-10 nm JunctionlessSi Nanowire FETs. , 2018, , .		3
22	Quantum Mechanical Simulations of the Impact of Surface Roughness on Nanowire TFET performance. , 2019, , .		3
23	Surface Roughness Scattering in NEGF using self-energy formulation. , 2019, , .		3
24	Quantum simulation investigation of work-function variation in nanowire tunnel FETs. Nanotechnology, 2021, 32, 150001.	2.6	3
25	Full-band quantum transport simulation in the presence of hole-phonon interactions using a mode-space $k \cdot p$ approach. Nanotechnology, 2021, 32, 020001.	2.6	2
26	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
27	Nanowire FETs. , 2018, , .		0
28	Efficient Coupled-mode space based Non-Equilibrium Green's Function Approach for Modeling Quantum Transport and Variability in Vertically Stacked SiNW FETs. , 2019, , .		0