

Hajime Tanaka

List of Publications by Year in descending order

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28
all docs

28
docs citations

28
times ranked

131
citing authors

#	ARTICLE	IF	CITATIONS
1	Estimation of Threshold Voltage in SiC Short-Channel MOSFETs. IEEE Transactions on Electron Devices, 2018, 65, 3077-3080.	1.6	28
2	Theoretical analysis of Hall factor and hole mobility in p-type 4H-SiC considering anisotropic valence band structure. Journal of Applied Physics, 2018, 123, .	1.1	22
3	Modeling of carrier scattering in MOS inversion layers with large density of interface states and simulation of electron Hall mobility in 4H-SiC MOSFETs. Japanese Journal of Applied Physics, 2020, 59, 031006.	0.8	21
4	Electron mobility along Γ and Γ directions in 4H-SiC over a wide range of donor concentration and temperature. Applied Physics Express, 2021, 14, 061005.	1.1	12
5	Phonon-Limited Electron Mobility in Rectangular Cross-Sectional Ge Nanowires. IEEE Transactions on Electron Devices, 2014, 61, 1993-1998.	1.6	11
6	Theoretical analysis of band structure effects on impact ionization coefficients in wide-bandgap semiconductors. Applied Physics Express, 2020, 13, 041006.	1.1	8
7	Critical electric field for transition of thermionic field emission/field emission transport in heavily doped SiC Schottky barrier diodes. Applied Physics Letters, 2022, 120, .	1.5	7
8	Material dependence of band-to-band tunneling in van der Waals heterojunctions of transition metal dichalcogenides. Journal Physics D: Applied Physics, 2020, 53, 255107.	1.3	6
9	Geometrical and band-structure effects on phonon-limited hole mobility in rectangular cross-sectional germanium nanowires. Journal of Applied Physics, 2014, 116, 235701.	1.1	5
10	Modeling of surface roughness scattering in nanowires based on atomistic wave function: Application to hole mobility in rectangular germanium nanowires. Physical Review B, 2016, 93, .	1.1	5
11	Physics and Innovative Technologies in SiC Power Devices. , 2021, , .		5
12	Quantum-confinement effects on conduction band structure of rectangular cross-sectional GaAs nanowires. Journal of Applied Physics, 2014, 115, 053713.	1.1	3
13	Analysis of high-field hole transport in germanium and silicon nanowires based on Boltzmann's transport equation. IEEE Nanotechnology Magazine, 2016, , 1-1.	1.1	3
14	Analysis of ballistic and quasi-ballistic hole transport properties in germanium nanowires based on an extended τ model. Solid-State Electronics, 2016, 123, 143-149.	0.8	3
15	Impacts of energy relaxation process on quasi-ballistic hole transport capability in germanium and silicon nanowires. Journal of Applied Physics, 2018, 123, .	1.1	3
16	Simulation analysis of high-field carrier transport in wide-bandgap semiconductors considering tunable band structures and scattering processes. Journal of Applied Physics, 2022, 131, .	1.1	3
17	Insight into phonon scattering in Si nanowires through high-field hole transport: Impacts of boundary condition and comparison with bulk phonon approximation. Journal of Physics: Conference Series, 2017, 864, 012046.	0.3	2
18	Franz-Keldysh effect in 4H-SiC p-n junction diodes under high electric field along the Γ direction. Japanese Journal of Applied Physics, 2019, 58, 091007.	0.8	2

#	ARTICLE	IF	CITATIONS
19	Carrier Trapping Effects on Forward Characteristics of SiC p-i-n Diodes Fabricated on High-Purity Semi-Insulating Substrates. IEEE Transactions on Electron Devices, 2022, 69, 1989-1994.	1.6	2
20	Analysis of quasi-ballistic hole transport capability of Ge and Si nanowire pMOSFETs by a quantum-corrected Boltzmann transport equation. , 2017, , .		1
21	Analytical models for inter-layer tunneling in two-dimensional materials. Japanese Journal of Applied Physics, 2022, 61, SC1022.	0.8	1
22	Size and geometric effects on conduction band structure of GaAs nanowires. , 2013, , .		0
23	Orientation and size effects on phonon-limited hole mobility in rectangular cross-sectional germanium nanowires. , 2014, , .		0
24	Impacts of orientation and cross-sectional shape on hole mobility of Si nanowire MOSFETs. , 2015, , .		0
25	Theoretical analysis of high-field hole transport in germanium and silicon nanowires. , 2016, , .		0
26	Analysis of Hall mobility in two-dimensional disordered systems. Semiconductor Science and Technology, 2020, 35, 095015.	1.0	0
27	Orientation and size effects on electronic structure of rectangular cross-sectional Sn nanowires. Journal of Applied Physics, 2021, 129, 224302.	1.1	0
28	Invited: Monte Carlo Simulation of Electron Mobility in SiC MOSFETs. , 2021, , .		0