Hajime Tanaka

List of Publications by Year
in descending order

28	153	1306789 7	1199166 12
papers	citations	h-index	g-index

28	28	28	131
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Analytical models for inter-layer tunneling in two-dimensional materials. Japanese Journal of Applied Physics, 2022, 61, SC1022.	0.8	1
2	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
3	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
4	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
5	Electron mobility along ã€ˆ0001ã€‰ and ã€ˆ11Ì…00ã€‰ directions in 4H-SiC over a wide range of donor concentration and temperature. Applied Physics Express, 2021, 14, 061005.	1.1	12
6	Orientation and size effects on electronic structure of rectangular cross-sectional Sn nanowires. Journal of Applied Physics, 2021, 129, 224302.	1.1	0
7	Invited: Monte Carlo Simulation of Electron Mobility in SiC MOSFETs. , 2021, , .		0
8	Physics and Innovative Technologies in SiC Power Devices. , 2021, , .		5
9	Analysis of Hall mobility in two-dimensional disordered systems. Semiconductor Science and Technology, 2020, 35, 095015.	1.0	0
10	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
11	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
12	Theoretical analysis of band structure effects on impact ionization coefficients in wide-bandgap semiconductors. Applied Physics Express, 2020, 13, 041006.	1.1	8
13	Franzâ€“Keldysh effect in 4H-SiC pâ€“n junction diodes under high electric field along the âŒ©11$ar{{f{2}}}$0âŒª direction. Japanese Journal of Applied Physics, 2019, 58, 091007.	0.8	2
14	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
15	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
16	Estimation of Threshold Voltage in SiC Short-Channel MOSFETs. IEEE Transactions on Electron Devices, 2018, 65, 3077-3080.	1.6	28
17	Analysis of quasi-ballistic hole transport capability of Ge and Si nanowire pMOSFETs by a quantum-corrected Boltzmann transport equation. , 2017, , .		1
18	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

#	Article	IF	Citations
19	Analysis of high-field hole transport in germanium and silicon nanowires based on Boltzmannâ€™s transport equation. IEEE Nanotechnology Magazine, 2016, , 1-1.	1.1	3
20	Analysis of ballistic and quasi-ballistic hole transport properties in germanium nanowires based on an extended â€œTop of the Barrierâ€•model. Solid-State Electronics, 2016, 123, 143-149.	0.8	3
21	Theoretical analysis of high-field hole transport in germanium and silicon nanowires. , 2016, , .		0
22	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
23	Impacts of orientation and cross-sectional shape on hole mobility of Si nanowire MOSFETs. , 2015, , .		0
24	Orientation and size effects on phonon-limited hole mobility in rectangular cross-sectional germanium nanowires. , 2014, , .		0
25	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
26	Quantum-confinement effects on conduction band structure of rectangular cross-sectional GaAs nanowires. Journal of Applied Physics, 2014, 115, 053713.	1.1	3
27	Phonon-Limited Electron Mobility in Rectangular Cross-Sectional Ge Nanowires. IEEE Transactions on Electron Devices, 2014, 61, 1993-1998.	1.6	11
28	Size and geometric effects on conduction band structure of GaAs nanowires. , 2013, , .		0