

Maarten L Van De Put

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

50 papers	716 citations	11 h-index	26 g-index
61 ext. papers	1,065 ext. citations	3.9 avg, IF	4.91 L-index

#	Paper	IF	Citations
50	LDMOS Drift Region With Field Oxides: Figure-of-Merit Derivation and Verification. <i>IEEE Journal of the Electron Devices Society</i> , 2022 , 10, 361-366	2.3	
49	Transition-metal nitride halide dielectrics for transition-metal dichalcogenide transistors.. <i>Nanoscale</i> , 2021 , 14, 157-165	7.7	6
48	2021 ,		1
47	Computing Curie temperature of two-dimensional ferromagnets in the presence of exchange anisotropy. <i>Physical Review Research</i> , 2021 , 3,	3.9	3
46	Magnetic properties and critical behavior of magnetically intercalated WSe ₂ : a theoretical study. <i>2D Materials</i> , 2021 , 8, 025009	5.9	10
45	Magnetic order and critical temperature of substitutionally doped transition metal dichalcogenide monolayers. <i>Npj 2D Materials and Applications</i> , 2021 , 5,	8.8	11
44	Figure-of-Merit for Laterally Diffused MOSFETs with Rectangular and Semi-Circular Field Oxides 2021 ,		1
43	New Verbeekite-type polymorphic phase and rich phase diagram in the PdSe ₂ -Tex system. <i>Physical Review B</i> , 2021 , 104,	3.3	9
42	Ab-Initio Study of Magnetically Intercalated Platinum Diselenide: The Impact of Platinum Vacancies. <i>Materials</i> , 2021 , 14,	3.5	1
41	Limitations of ab initio methods to predict the electronic-transport properties of two-dimensional semiconductors: the computational example of 2H-phase transition metal dichalcogenides. <i>Journal of Computational Electronics</i> , 2021 , 20, 49-59	1.8	9
40	Quantum transport simulation of graphene-nanoribbon field-effect transistors with defects. <i>Journal of Computational Electronics</i> , 2021 , 20, 21-37	1.8	2
39	Critical behavior of the ferromagnets CrI ₃ , CrBr ₃ , and CrGeTe ₃ and the antiferromagnet FeCl ₂ : A detailed first-principles study. <i>Physical Review B</i> , 2021 , 103,	3.3	10
38	Identification of two-dimensional layered dielectrics from first principles. <i>Nature Communications</i> , 2021 , 12, 5051	17.4	13
37	Monte Carlo analysis of phosphorene nanotransistors. <i>Journal of Computational Electronics</i> , 2021 , 20, 60-69	1.8	0
36	Tellurium as a successor of silicon for extremely scaled nanowires: a first-principles study. <i>Npj 2D Materials and Applications</i> , 2020 , 4,	8.8	19
35	Master-Equation Study of Quantum Transport in Realistic Semiconductor Devices Including Electron-Phonon and Surface-Roughness Scattering. <i>Physical Review Applied</i> , 2020 , 13,	4.3	6
34	Electronic transport properties of hydrogenated and fluorinated graphene: a computational study. <i>Journal of Physics Condensed Matter</i> , 2020 , 32, 495502	1.8	4

33	Channel Length Optimization for Planar LDMOS Field-Effect Transistors for Low-Voltage Power Applications. <i>IEEE Journal of the Electron Devices Society</i> , 2020 , 8, 711-715	2.3	6
32	Generation of empirical pseudopotentials for transport applications and their application to group IV materials. <i>Journal of Applied Physics</i> , 2020 , 128, 034306	2.5	1
31	. <i>IEEE Transactions on Electron Devices</i> , 2020 , 67, 4990-4997	2.9	6
30	Channel Length Scaling Limit for LDMOS Field-Effect Transistors: Semi-classical and Quantum Analysis 2020 ,		2
29	Electronic Transport Properties of Silicane Determined from First Principles. <i>Materials</i> , 2019 , 12,	3.5	11
28	Scalable atomistic simulations of quantum electron transport using empirical pseudopotentials. <i>Computer Physics Communications</i> , 2019 , 244, 156-169	4.2	12
27	Hot electrons in Si lose energy mostly to optical phonons—Truth or myth?. <i>Applied Physics Letters</i> , 2019 , 114, 222104	3.4	9
26	Carrier transport in two-dimensional topological insulator nanoribbons in the presence of vacancy defects. <i>2D Materials</i> , 2019 , 6, 025011	5.9	10
25	Trigonal Tellurium Nanostructure Formation Energy and Band gap 2019 ,		1
24	Theoretical study of scattering in graphene ribbons in the presence of structural and atomistic edge roughness. <i>Physical Review Materials</i> , 2019 , 3,	3.2	6
23	First-principles Study of the Electron and Hole Mobility in Silicane 2019 ,		1
22	Monte Carlo Study of Electronic Transport in Monolayer InSe. <i>Materials</i> , 2019 , 12,	3.5	9
21	Phonon-assisted tunneling in direct-bandgap semiconductors. <i>Journal of Applied Physics</i> , 2019 , 125, 015704	2.5	3
20	Dielectric properties of hexagonal boron nitride and transition metal dichalcogenides: from monolayer to bulk. <i>Npj 2D Materials and Applications</i> , 2018 , 2,	8.8	293
19	Monte-Carlo study of electronic transport in non- Γ -symmetric two-dimensional materials: Silicene and germanene. <i>Journal of Applied Physics</i> , 2018 , 124, 044306	2.5	15
18	Simulation of Quantum Current in Double Gate MOSFETs: Vortices in Electron Transport 2018 ,		1
17	Self-consistent procedure including envelope function normalization for full-zone Schrödinger-Poisson problems with transmitting boundary conditions. <i>Journal of Applied Physics</i> , 2018 , 124, 204501	2.5	1
16	Theoretical studies of electronic transport in monolayer and bilayer phosphorene: A critical overview. <i>Physical Review B</i> , 2018 , 98,	3.3	43

15	Efficient solution of the Wigner-Dirac equation using a spectral decomposition of the force field. <i>Journal of Computational Physics</i> , 2017 , 350, 314-325	4.1	11
14	Uniform Strain in Heterostructure Tunnel Field-Effect Transistors. <i>IEEE Electron Device Letters</i> , 2016 , 37, 337-340	4.4	13
13	Electric-field induced quantum broadening of the characteristic energy level of traps in semiconductors and oxides. <i>Journal of Applied Physics</i> , 2016 , 120, 245704	2.5	7
12	Inter-ribbon tunneling in graphene: An atomistic Bardeen approach. <i>Journal of Applied Physics</i> , 2016 , 119, 214306	2.5	7
11	An envelope function formalism for lattice-matched heterostructures. <i>Physica B: Condensed Matter</i> , 2015 , 470-471, 69-75	2.8	6
10	Full-zone spectral envelope function formalism for the optimization of line and point tunnel field-effect transistors. <i>Journal of Applied Physics</i> , 2015 , 118, 134502	2.5	11
9	Modeling of inter-ribbon tunneling in graphene 2015 ,		1
8	15-band spectral envelope function formalism applied to broken gap tunnel field-effect transistors 2015 ,		2
7	InGaAs tunnel diodes for the calibration of semi-classical and quantum mechanical band-to-band tunneling models. <i>Journal of Applied Physics</i> , 2014 , 115, 184503	2.5	38
6	Quantum mechanical solver for confined heterostructure tunnel field-effect transistors. <i>Journal of Applied Physics</i> , 2014 , 115, 053706	2.5	19
5	Can p-channel tunnel field-effect transistors perform as good as n-channel?. <i>Applied Physics Letters</i> , 2014 , 105, 043103	3.4	10
4	Tensile strained Ge tunnel field-effect transistors: k · p material modeling and numerical device simulation. <i>Journal of Applied Physics</i> , 2014 , 115, 044505	2.5	30
3	Perspective of tunnel-FET for future low-power technology nodes 2014 ,		15
2	2014 ,		1
1	Band-to-band tunneling in III-V semiconductor heterostructures 2013 ,		5