FranÃ§ois Triozon

List of Publications by Year
in descending order

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58 papers	3,003 citations	236925 25 h-index	223800 46 g-index
63 all docs	63 docs citations	63 times ranked	3142 citing authors

#	Article	IF	Citations
1	Charge Transport in Chemically Doped 2D Graphene. Physical Review Letters, 2008, 101, 036808.	7.8	461
2	Anomalous Doping Effects on Charge Transport in Graphene Nanoribbons. Physical Review Letters, 2009, 102, 096803.	7.8	323
3	Charge transport in disordered graphene-based low dimensional materials. Nano Research, 2008, 1, 361-394.	10.4	319
4	Electrical transport in carbon nanotubes: Role of disorder and helical symmetries. Physical Review B, 2004, 69, .	3.2	149
5	Electronic transport properties of carbon nanotube based metal/semiconductor/metal intramolecular junctions. Nanotechnology, 2005, 16, 230-233.	2.6	125
6	Chemically Induced Mobility Gaps in Graphene Nanoribbons: A Route for Upscaling Device Performances. Nano Letters, 2009, 9, 2725-2729.	9.1	120
7	Effect of the Chemical Functionalization on Charge Transport in Carbon Nanotubes at the Mesoscopic Scale. Nano Letters, 2009, 9, 940-944.	9.1	118
8	Conduction mechanisms and magnetotransport in multiwalled carbon nanotubes. Physical Review B, 2001, 64, .	3.2	111
9	Quantum Transport in Graphene Nanoribbons: Effects of Edge Reconstruction and Chemical Reactivity. ACS Nano, 2010, 4, 1971-1976.	14.6	108
10	Chemical Functionalization Effects on Armchair Graphene Nanoribbon Transport. Nano Letters, 2009, 9, 2537-2541.	9.1	93
11	Orientational Dependence of Charge Transport in Disordered Silicon Nanowires. Nano Letters, 2008, 8, 4146-4150.	9.1	90
12	Quantum Dephasing in Carbon Nanotubes due to Electron-Phonon Coupling. Physical Review Letters, 2005, 95, 076803.	7.8	88
13	Contact-dependent effects and tunneling currents in DNA molecules. Physical Review B, 2005, 71, .	3.2	76
14	Quantum dynamics in two- and three-dimensional quasiperiodic tilings. Physical Review B, 2002, 65, .	3.2	74
15	Few-Electron Edge-State Quantum Dots in a Silicon Nanowire Field-Effect Transistor. Nano Letters, 2014, 14, 2094-2098.	9.1	72
16	Chemical disorder strength in carbon nanotubes: Magnetic tuning of quantum transport regimes. Physical Review B, 2006, 74, .	3.2	69
17	LOW-DIMENSIONAL QUANTUM TRANSPORT PROPERTIES OF CHEMICALLY-DISORDERED CARBON NANOTUBES: FROM WEAK TO STRONG LOCALIZATION REGIMES. Modern Physics Letters B, 2007, 21, 1955-1982.	1.9	65
18	Atomistic Boron-Doped Graphene Field-Effect Transistors: A Route toward Unipolar Characteristics. ACS Nano, 2012, 6, 7942-7947.	14.6	60

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19	Quantum transport length scales in silicon-based semiconducting nanowires: Surface roughness effects. Physical Review B, 2008, 77, .	3.2	51
20	Quantum calculations of the carrier mobility: Methodology, Matthiessen's rule, and comparison with semi-classical approaches. Journal of Applied Physics, 2014, 115, 054512.	2.5	50
21	Electronic conduction in multi-walled carbon nanotubes: role of intershell coupling and incommensurability. Physics Letters, Section A: General, Atomic and Solid State Physics, 2001, 285, 94-100.	2.1	48
22	Charge transport in carbon nanotubes based materials: a Kuboâ€“Greenwood computational approach. Comptes Rendus Physique, 2009, 10, 283-296.	0.9	46
23	Carbon nanotube chemistry and assembly for electronic devices. Comptes Rendus Physique, 2009, 10, 330-347.	0.9	28
24	Quantum Dot Made in Metal Oxide Silicon-Nanowire Field Effect Transistor Working at Room Temperature.. Nano Letters, 2015, 15, 2958-2964.	9.1	28
25	Quantum Modeling of the Carrier Mobility in FDSOI Devices. IEEE Transactions on Electron Devices, 2014, 61, 3096-3102.	3.0	27
26	Performances of Strained Nanowire Devices: Ballistic Versus Scattering-Limited Currents. IEEE Transactions on Electron Devices, 2013, 60, 1506-1513.	3.0	26
27	Anomalous Magnetotransport in Chemically Doped Carbon Nanotubes. Physical Review Letters, 2005, 95, 126802.	7.8	20
28	Contact resistances in trigate and FinFET devices in a non-equilibrium Green's functions approach. Journal of Applied Physics, 2016, 119, .	2.5	19
29	Multiscale simulation of carbon nanotube transistors. Solid-State Electronics, 2013, 89, 26-67.	1.4	17
30	Conductance and coherence lengths in disordered carbon nanotubes: Role of lattice defects and phonon vibrations. Physical Review B, 2005, 72, .	3.2	14
31	Backscattering in carbon nanotubes: Role of quantum interference effects. Applied Physics Letters, 2001, 79, 3690-3692.	3.3	13
32	Carrier scattering in high-Î²/metal gate stacks. Journal of Applied Physics, 2017, 121, .	2.5	13
33	Optical vs electronic gap of hafnia by ab initio Bethe-Salpeter equation. Applied Physics Letters, 2018, 113, .	3.3	13
34	A Simple Interpolation Model for the Carrier Mobility in Trigate and Gate-All-Around Silicon NWFETs. IEEE Transactions on Electron Devices, 2017, 64, 2485-2491.	3.0	12
35	Electron transport properties of mirror twin grain boundaries in molybdenum disulfide: Impact of disorder. Physical Review B, 2019, 100, .	3.2	9
36	Impact of edge roughness on the electron transport properties of MoS2 ribbons. Journal of Applied Physics, 2018, 124, .	2.5	7

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37	Chemically enriched graphene-based switching devices: A novel principle driven by impurity-induced quasibound states and quantum coherence. Physica E: Low-Dimensional Systems and Nanostructures, 2012, 44, 960-962.	2.7	6
38	Electronic and thermal properties of GeTe/Sb2Te3 superlattices by ab initio approach: Impact of Van der Waals gaps on vertical lattice thermal conductivity. Applied Physics Letters, 2021, 119, .	3.3	5
39	Evidence for a marginally conducting state in AlCuFe and AlPdMn quasicrystals. Journal of Non-Crystalline Solids, 2004, 334-335, 376-379.	3.1	4
40	Electronic structure and electron mobility in Si1â€“â€ˆxGex nanowires. Applied Physics Letters, 2017, 110, .	3.3	4
41	Modeled optical properties of SiGe and Si layers compared to spectroscopic ellipsometry measurements. Solid-State Electronics, 2017, 129, 93-96.	1.4	4
42	Investigation on interface charges in SiN/AlxGa1â€ˆxN/GaN heterostructures by analyzing the gate-to-channel capacitance and the drain current behaviors. Journal of Applied Physics, 2021, 130, .	2.5	4
43	Strain effects on transport properties of Si nanowire devices. , 2013, , .		3
44	Conduction mechanisms and metalâ€“insulator transition in quasi-crystals. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2000, 294-296, 496-499.	5.6	2
45	Atomistic Tight-Binding Approaches to Quantum Transport. , 2009, , .		2
46	Simulation, modelling and characterisation of quasi-ballistic transport in nanometer sized field effect transistors: from TCAD to atomistic simulation. International Journal of Nanotechnology, 2010, 7, 348.	0.2	1
47	Mobility gaps in disordered grapheneâ€based materials: an ab initio â€based tightâ€binding approach to mesoscopic transport. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 2628-2631.	0.8	1
48	Monte Carlo study of effective mobility in short channel FDSOI MOSFETs. , 2014, , .		1
49	Plane-wave many-body corrections to the conductance in bulk tunnel junctions. Physical Review B, 2020, 101, .	3.2	1
50	MOS-like approach for compact modeling of High-Electron-Mobility Transistor. , 2020, , .		1
51	ELECTRONIC TRANSPORT IN CARBON NANOTUBES AT THE MESOSCOPIC SCALE. , 2006, , 143-165.		1
52	Conduction mechanism in multiwall carbon nanotubes. AIP Conference Proceedings, 2001, , .	0.4	0
53	Anomalous quantum diffusion in two- and three-dimensional generalized Rauzy tilings. Journal of Non-Crystalline Solids, 2004, 334-335, 91-95.	3.1	0
54	Transport properties of strained silicon nanowires. , 2012, , .		0

#	Article	IF	Citations
55	Contact resistances in Trigate devices in a Non-Equilibrium Green's Functions framework. , 2016, , .		0
56	Size-dependent carrier mobilities in rectangular silicon nanowire devices. , 2016, , .		0
57	High and low-field contact resistances in trigate devices in a Non-Equilibrium Green's Functions framework. , 2016, , .		0
58	Carrier scattering by workfunction fluctuations and interface dipoles in high-K/metal gate stacks. , 2016, , .		0