Stephan Roche

List of Publications by Year
in descending order

244 papers	17,301 citations	14655 66 h-index	17105 122 g-index
265 all docs	265 docs citations	265 times ranked	16057 citing authors

#	Article	IF	Citations
1	Emerging properties of non-crystalline phases of graphene and boron nitride based materials. Nano Materials Science, 2022, 4, 10-17.	8.8	12
2	Have mysterious topological valley currents been observed in graphene superlattices?. JPhys Materials, 2022, 5, 021001.	4.2	8
3	Magnetism, symmetry and spin transport in van der Waals layered systems. Nature Reviews Physics, 2022, 4, 150-166.	26.6	72
4	Giant valley-polarized spin splittings in magnetized Janus Pt dichalcogenides. Physical Review B, 2022, 105, .	3.2	3
5	Toward Optimized Charge Transport in Multilayer Reduced Graphene Oxides. Nano Letters, 2022, , .	9.1	3
6	Two-dimensional materials prospects for non-volatile spintronic memories. Nature, 2022, 606, 663-673.	27.8	116
7	Reply to: On the measured dielectric constant of amorphous boron nitride. Nature, 2021, 590, E8-E10.	27.8	1
8	Graphene on two-dimensional hexagonal BN, AlN, and GaN: Electronic, spin-orbit, and spin relaxation properties. Physical Review B, 2021, 103, .	3.2	18
9	Valley Hall effect and nonlocal resistance in locally gapped graphene. Physical Review B, 2021, 103, .	3.2	12
10	Linear scaling quantum transport methodologies. Physics Reports, 2021, 903, 1-69.	25.6	46
11	Hinge Spin Polarization in Magnetic Topological Insulators Revealed by Resistance Switch. Physical Review Letters, 2021, 126, 167701.	7.8	11
12	Room-temperature tunnel magnetoresistance across biomolecular tunnel junctions based on ferritin. JPhys Materials, 2021, 4, 035003.	4.2	5
13	Van der Waals heterostructures for spintronics and opto-spintronics. Nature Nanotechnology, 2021, 16, 856-868.	31.5	261
14	Observation of giant and tunable thermal diffusivity of a Dirac fluid at room temperature. Nature Nanotechnology, 2021, 16, 1195-1200.	31.5	16
15	Janus monolayers of magnetic transition metal dichalcogenides as an all-in-one platform for spin-orbit torque. Physical Review B, 2021, 104, .	3.2	13
16	Thermal transport in amorphous graphene with varying structural quality. 2D Materials, 2021, 8, 015028.	4.4	6
17	Control of spinâ€“charge conversion in van der Waals heterostructures. APL Materials, 2021, 9, .	5.1	20
18	Valley-polarized quantum anomalous Hall phase in bilayer graphene with layer-dependent proximity effects. Physical Review B, 2021, 104, .	3.2	18

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19	Low-symmetry topological materials for large charge-to-spin interconversion: The case of transition metal dichalcogenide monolayers. Physical Review Research, 2021, 3, .	3.6	11
20	Introduction to Carbon-Based Nanostructures. , 2020, , 1-10.		0
21	The New Family of Two-Dimensional Materials and van der Waals Heterostructures. , 2020, , 70-91.		0
22	Quantum Transport: General Concepts. , 2020, , 92-119.		0
23	Klein Tunneling and Ballistic Transport in Graphene and Related Materials. , 2020, , 120-144.		0
24	Quantum Transport in Disordered Graphene-Based Materials. , 2020, , 145-209.		0
25	Electronic Properties of Carbon-Based Nanostructures. , 2020, , 11-69.		0
26	Quantum Hall Effects in Graphene. , 2020, , 210-236.		0
27	Spin-Related Phenomena. , 2020, , 237-277.		0
28	Ab Initio and Multiscale Quantum Transport in Graphene-Based Materials. , 2020, , 293-353.		0
29	Magnetic proximity in a van der Waals heterostructure of magnetic insulator and graphene. 2D Materials, 2020, 7, 015026.	4.4	80
30	Tunable room-temperature spin galvanic and spin Hall effects in van der Waals heterostructures. Nature Materials, 2020, 19, 170-175.	27.5	127
31	Exploring event horizons and Hawking radiation through deformed graphene membranes. 2D Materials, 2020, 7, 041006.	4.4	13
32	Emergence of intraparticle entanglement and time-varying violation of Bell's inequality in Dirac matter. Physical Review B, 2020, 102, .	3.2	3
33	Optimization of the Sensitivity of a Double-Dot Magnetic Detector. Electronics (Switzerland), 2020, 9, 1134.	3.1	2
34	Blue emission at atomically sharp 1D heterojunctions between graphene and h-BN. Nature Communications, 2020, 11, 5359.	12.8	23
35	Canted Persistent Spin Texture and Quantum Spin Hall Effect in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>WTe</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn> Physical Review Letters, 2020, 125, 256603.	7.8	38
36	Magnetism, spin dynamics, and quantum transport in two-dimensional systems. MRS Bulletin, 2020, 45, 357-365.	3.5	8

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37	Nonlocal Spin Dynamics in the Crossover from Diffusive to Ballistic Transport. Physical Review Letters, 2020, 124, 196602.	7.8	17
38	Exploring phononic properties of two-dimensional materials using machine learning interatomic potentials. Applied Materials Today, 2020, 20, 100685.	4.3	96
39	Ultralow-dielectric-constant amorphous boron nitride. Nature, 2020, 582, 511-514.	27.8	173
40	Machine-learning interatomic potentials enable first-principles multiscale modeling of lattice thermal conductivity in graphene/borophene heterostructures. Materials Horizons, 2020, 7, 2359-2367.	12.2	124
41	Efficient machine-learning based interatomic potentialsfor exploring thermal conductivity in two-dimensional materials. JPhys Materials, 2020, 3, 02LT02.	4.2	32
42	Impact of oxidation morphology on reduced graphene oxides upon thermal annealing. JPhys Materials, 2020, 3, 015011.	4.2	14
43	Quantum Transport beyond DC. , 2020, , 278-292.		0
44	The 2021 quantum materials roadmap. JPhys Materials, 2020, 3, 042006.	4.2	111
45	Green function, quasi-classical Langevin and Kuboâ€œGreenwood methods in quantum thermal transport. Journal of Physics Condensed Matter, 2019, 31, 273003.	1.8	15
46	Universal Spin Diffusion Length in Polycrystalline Graphene. Nano Letters, 2019, 19, 7418-7426.	9.1	15
47	Nonvolatile Memories Based on Graphene and Related 2D Materials. Advanced Materials, 2019, 31, e1806663.	21.0	230
48	Tunable circular dichroism and valley polarization in the modified Haldane model. Physical Review B, 2019, 99, .	3.2	13
49	The phase diagram of 2D antiferromagnets. Nature Nanotechnology, 2019, 14, 1088-1089.	31.5	8
50	Room-Temperature Spin Hall Effect in Graphene/MoS₂ van der Waals Heterostructures. Nano Letters, 2019, 19, 1074-1082.	9.1	186
51	Spin Proximity Effects in Graphene/Topological Insulator Heterostructures. Nano Letters, 2018, 18, 2033-2039.	9.1	86
52	Spin transport in graphene/transition metal dichalcogenide heterostructures. Chemical Society Reviews, 2018, 47, 3359-3379.	38.1	150
53	1D ferromagnetic edge contacts to 2D graphene/h-BN heterostructures. 2D Materials, 2018, 5, 014001.	4.4	26
54	Welcome to JPhys Materials. JPhys Materials, 2018, 1, 010201.	4.2	0

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55	Effect of the Channel Length on the Transport Characteristics of Transistors Based on Boron-Doped Graphene Ribbons. Materials, 2018, 11, 667.	2.9	10
56	Unequivocal signatures of the crossover to Anderson localization in realistic models of disordered quasi-one-dimensional materials. Physical Review B, 2018, 98, .	3.2	23
57	Charge and spin transport anisotropy in nanopatterned graphene. JPhys Materials, 2018, 1, 015005.	4.2	10
58	Tailoring emergent spin phenomena in Dirac material heterostructures. Science Advances, 2018, 4, eaat9349.	10.3	65
59	Deciphering the origin of nonlocal resistance in multiterminal graphene on hexagonal-boron-nitride with <i>ab initio</i> quantum transport: Fermi surface edge currents rather than Fermi sea topological valley currents. JPhys Materials, 2018, 1, 015006.	4.2	24
60	Ballistic tracks in graphene nanoribbons. Nature Communications, 2018, 9, 4426.	12.8	45
61	Sensing ion channel in neuron networks with graphene field effect transistors. 2D Materials, 2018, 5, 045020.	4.4	21
62	A barrier to spin filters. Nature Electronics, 2018, 1, 328-329.	26.0	3
63	Grain boundary-induced variability of charge transport in hydrogenated polycrystalline graphene. 2D Materials, 2017, 4, 025009.	4.4	5
64	Large edge magnetism in oxidized few-layer black phosphorus nanomeshes. Nano Research, 2017, 10, 718-728.	10.4	27
65	Spin precession in anisotropic media. Physical Review B, 2017, 95, .	3.2	46
66	Electrical and Thermal Transport in Coplanar Polycrystalline Grapheneâ€"hBN Heterostructures. Nano Letters, 2017, 17, 1660-1664.	9.1	62
67	Tailoring magnetic insulator proximity effects in graphene: first-principles calculations. 2D Materials, 2017, 4, 025074.	4.4	121
68	Scaling properties of polycrystalline graphene: a review. 2D Materials, 2017, 4, 012002.	4.4	62
69	Record Low Thermal Conductivity of Polycrystalline MoS₂ Films: Tuning the Thermal Conductivity by Grain Orientation. ACS Applied Materials & Interfaces, 2017, 9, 37905-37911.	8.0	35
70	Growth of Twin-Free and Low-Doped Topological Insulators on BaF₂(111). Crystal Growth and Design, 2017, 17, 4655-4660.	3.0	34
71	Spin Hall Effect and Weak Antilocalization in Graphene/Transition Metal Dichalcogenide Heterostructures. Nano Letters, 2017, 17, 5078-5083.	9.1	91
72	Graphene Spintronics. , 2017, , 197-218.		1

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73	Giant Spin Lifetime Anisotropy in Graphene Induced by Proximity Effects. Physical Review Letters, 2017, 119, 206601.	7.8	161
74	Valley-polarized quantum transport generated by gauge fields in graphene. 2D Materials, 2017, 4, 031006.	4.4	35
75	Scale-invariant large nonlocality in polycrystalline graphene. Nature Communications, 2017, 8, 2198.	12.8	17
76	On the Possibility of Observing Tunable Laser-Induced Bandgaps in Graphene. , 2017, , 41-59.		0
77	Gate-Tunable Atomically Thin Lateral MoS₂ Schottky Junction Patterned by Electron Beam. Nano Letters, 2016, 16, 3788-3794.	9.1	99
78	Quantum transport in graphene in presence of strain-induced pseudo-Landau levels. 2D Materials, 2016, 3, 034005.	4.4	13
79	Thermal conductivity of MoS ₂ polycrystalline nanomembranes. 2D Materials, 2016, 3, 035016.	4.4	37
80	Localized electronic states at grain boundaries on the surface of graphene and graphite. 2D Materials, 2016, 3, 031005.	4.4	26
81	Near-field photocurrent nanoscopy on bare and encapsulated graphene. Nature Communications, 2016, 7, 10783.	12.8	80
82	Spin dynamics in bilayer graphene: Role of electron-hole puddles and Dyakonov-Perel mechanism. Physical Review B, 2016, 94, .	3.2	4
83	Anomalous ballistic transport in disordered bilayer graphene: A Dirac semimetal induced by dimer vacancies. Physical Review B, 2016, 93, .	3.2	7
84	Unconventional features in the quantum Hall regime of disordered graphene: Percolating impurity states and Hall conductance quantization. Physical Review B, 2016, 93, .	3.2	34
85	Effects of Dephasing on Spin Lifetime in Ballistic Spin-Orbit Materials. Physical Review Letters, 2016, 116, 086602.	7.8	54
86	Spin Manipulation in Graphene by Chemically Induced Pseudospin Polarization. Physical Review Letters, 2016, 116, 106601.	7.8	19
87	How disorder affects topological surface states in the limit of ultrathin Bi₂Se₃films. 2D Materials, 2016, 3, 045007.	4.4	2
88	Spin dynamics and relaxation in graphene dictated by electron-hole puddles. Scientific Reports, 2016, 6, 21046.	3.3	67
89	Spin Hall Effect and Origins of Nonlocal Resistance in Adatom-Decorated Graphene. Physical Review Letters, 2016, 117, 176602.	7.8	61
90	Electronic Transport in Carbon Nanomaterials. , 2016, , 1084-1101.		0

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91	Efficient linear scaling approach for computing the Kubo Hall conductivity. Physical Review B, 2015, 91, .	3.2	16
92	Spin transport in hydrogenated graphene. 2D Materials, 2015, 2, 022002.	4.4	81
93	Graphene spintronics: the European Flagship perspective. 2D Materials, 2015, 2, 030202.	4.4	243
94	Role of grain boundaries in tailoring electronic properties of polycrystalline graphene by chemical functionalization. 2D Materials, 2015, 2, 024008.	4.4	74
95	Science and technology roadmap for graphene, related two-dimensional crystals, and hybrid systems. Nanoscale, 2015, 7, 4598-4810.	5.6	2,452
96	Anisotropic behavior of quantum transport in graphene superlattices: Coexistence of ballistic conduction with Anderson insulating regime. Physical Review B, 2014, 89, .	3.2	8
97	Quantum Hall effect in polycrystalline graphene: The role of grain boundaries. Physical Review B, 2014, 90, .	3.2	52
98	Impact of graphene polycrystallinity on the performance of graphene field-effect transistors. Applied Physics Letters, 2014, 104, 043509.	3.3	7
99	Tunneling magnetoresistance phenomenon utilizing graphene magnet electrode. Applied Physics Letters, 2014, 105, 183111.	3.3	17
100	Anomalous dissipation mechanism and Hall quantization limit in polycrystalline graphene grown by chemical vapor deposition. Physical Review B, 2014, 90, .	3.2	20
101	Multiple Quantum Phases in Graphene with Enhanced Spin-Orbit Coupling: From the Quantum Spin Hall Regime to the Spin Hall Effect and a Robust Metallic State. Physical Review Letters, 2014, 113, 246603.	7.8	39
102	Dissipative quantum Hall effect in polycrystalline CVD graphene. , 2014, , .		2
103	Physical model of the contact resistivity of metal-graphene junctions. Journal of Applied Physics, 2014, 115, .	2.5	51
104	Pseudospin-driven spin relaxation mechanism inÂgraphene. Nature Physics, 2014, 10, 857-863.	16.7	86
105	Fingerprints of Inelastic Transport at the Surface of the Topological Insulator<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>Bi</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></m Role of Electron-Phonon Coupling. Physical Review Letters, 2014, 112, .	7.8	56
106	Graphene spintronics: puzzling controversies and challenges for spin manipulation. Journal Physics D: Applied Physics, 2014, 47, 094011.	2.8	95
107	Transport fingerprints at graphene superlattice Dirac points induced by a boron nitride substrate. Physical Review B, 2014, 89, .	3.2	10
108	Charge Transport in Polycrystalline Graphene: Challenges and Opportunities. Advanced Materials, 2014, 26, 5079-5094.	21.0	166

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109	Quantum transport in chemically functionalized graphene at high magnetic field: defect-induced critical states and breakdown of electron-hole symmetry. 2D Materials, 2014, 1, 021001.	4.4	15
110	Non-perturbative effects of laser illumination on the electrical properties of graphene nanoribbons. Journal of Physics Condensed Matter, 2013, 25, 144202.	1.8	31
111	Band Gap Engineering via Edge-Functionalization of Graphene Nanoribbons. Journal of Physical Chemistry C, 2013, 117, 26790-26796.	3.1	78
112	Multiscale simulation of carbon nanotube transistors. Solid-State Electronics, 2013, 89, 26-67.	1.4	17
113	Scaling Properties of Charge Transport in Polycrystalline Graphene. Nano Letters, 2013, 13, 1730-1735.	9.1	126
114	Broken Symmetries, Zero-Energy Modes, and Quantum Transport in Disordered Graphene: From Supermetallic to Insulating Regimes. Physical Review Letters, 2013, 110, 196601.	7.8	84
115	Highly defective graphene: A key prototype of two-dimensional Anderson insulators. Nano Research, 2013, 6, 326-334.	10.4	59
116	Splitting of the Zero-Energy Landau Level and Universal Dissipative Conductivity at Critical Points in Disordered Graphene. Physical Review Letters, 2013, 110, 086602.	7.8	55
117	Proximity Effects Induced in Graphene by Magnetic Insulators: First-Principles Calculations on Spin Filtering and Exchange-Splitting Gaps. Physical Review Letters, 2013, 110, 046603.	7.8	287
118	Impact of Vacancies on Diffusive and Pseudodiffusive Electronic Transport in Graphene. Crystals, 2013, 3, 289-305.	2.2	32
119	Electron-hole transport asymmetry in boron-doped graphene field effect transistors. , 2012, , .		6
120	Embedded boron nitride domains in graphene nanoribbons for transport gap engineering. Physical Review B, 2012, 86, .	3.2	18
121	Insulating behavior of an amorphous graphene membrane. Physical Review B, 2012, 86, .	3.2	38
122	Quantum transport in disordered graphene: A theoretical perspective. Solid State Communications, 2012, 152, 1404-1410.	1.9	93
123	Atomistic Boron-Doped Graphene Field-Effect Transistors: A Route toward Unipolar Characteristics. ACS Nano, 2012, 6, 7942-7947.	14.6	60
124	Electrospinning. , 2012, , 769-775.		2
125	Three-Dimensional Models of Topological Insulators: Engineering of Dirac Cones and Robustness of the Spin Texture. Physical Review Letters, 2012, 109, 266805.	7.8	20
126	Laser-induced effects on the electronic features of graphene nanoribbons. Applied Physics Letters, 2012, 101, 253506.	3.3	53

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127	Electrostatic RF MEMS Switches. , 2012, , 783-783.		0
128	Electrowetting-on-Dielectric (EWOD). , 2012, , 789-789.		0
129	Quenching of the Quantum Hall Effect in Graphene with Scrolled Edges. Physical Review Letters, 2012, 108, 166602.	7.8	12
130	Transport properties of graphene containing structural defects. Physical Review B, 2012, 86, .	3.2	157
131	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
132	Magnetoresistance in disordered graphene: The role of pseudospin and dimensionality effects unraveled. Europhysics Letters, 2011, 94, 47006.	2.0	69
133	Effects of domains in phonon conduction through hybrid boron nitride and graphene sheets. Physical Review B, 2011, 84, .	3.2	66
134	Oxygen Surface Functionalization of Graphene Nanoribbons for Transport Gap Engineering. ACS Nano, 2011, 5, 9271-9277.	14.6	53
135	Magnetoresistance and Magnetic Ordering Fingerprints in Hydrogenated Graphene. Physical Review Letters, 2011, 107, 016602.	7.8	132
136	Magnetism-Dependent Transport Phenomena in Hydrogenated Graphene: From Spin-Splitting to Localization Effects. ACS Nano, 2011, 5, 3987-3992.	14.6	47
137	Engineering carbon chains from mechanically stretched graphene-based materials. Physical Review B, 2011, 83, .	3.2	50
138	Tuning laser-induced band gaps in graphene. Applied Physics Letters, 2011, 98, .	3.3	215
139	Efficient linear scaling method for computing the thermal conductivity of disordered materials. Physical Review B, 2011, 83, .	3.2	46
140	Two-Dimensional Graphene with Structural Defects: Elastic Mean Free Path, Minimum Conductivity, and Anderson Transition. Physical Review Letters, 2011, 106, 046803.	7.8	105
141	Integer Quantum Hall Effect in Trilayer Graphene. Physical Review Letters, 2011, 107, 126806.	7.8	94
142	Graphene gets a better gap. Nature Nanotechnology, 2011, 6, 8-9.	31.5	58
143	Inducing and optimizing magnetism in graphene nanomeshes. Physical Review B, 2011, 84, .	3.2	69
144	Graphene: Piecing it Together. Advanced Materials, 2011, 23, 4471-4490.	21.0	127

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145	Mechanically-induced transport switching effect in graphene-based nanojunctions. Physical Review B, 2011, 83, .	3.2	7
146	Polaron transport in organic crystals: Temperature tuning of disorder effects. Physical Review B, 2011, 84, .	3.2	51
147	Quantum transport in chemically modified two-dimensional graphene: From minimal conductivity to Anderson localization. Physical Review B, 2011, 84, .	3.2	84
148	Unveiling the Magnetic Structure of Graphene Nanoribbons. Physical Review Letters, 2011, 107, 086601.	7.8	64
149	Nanoelectronics: Graphene gets a better gap. Nature Nanotechnology, 2011, 6, 8-9.	31.5	6
150	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
151	Inelastic Transport in Vibrating Disordered Carbon Nanotubes: Scattering Times and Temperature-Dependent Decoherence Effects. Physical Review Letters, 2010, 104, 116801.	7.8	55
152	Magnetotransport in disordered graphene exposed to ozone: From weak to strong localization. Physical Review B, 2010, 81, .	3.2	141
153	Quantum transport properties of chemically functionalized long semiconducting carbon nanotubes. Nano Research, 2010, 3, 288-295.	10.4	48
154	Conductance of functionalized nanotubes, graphene and nanowires: from <i>ab initio</i> to mesoscopic physics. Physica Status Solidi (B): Basic Research, 2010, 247, 2962-2967.	1.5	16
155	Mobility gaps in disordered grapheneâ€based materials: an <i>ab initio</i> 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
156	Preface: phys. stat. sol. (c) 7/11-12. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 2593-2595.	0.8	0
157	Edge magnetotransport fingerprints in disordered graphene nanoribbons. Physical Review B, 2010, 82, .	3.2	63
158	Damaging Graphene with Ozone Treatment: A Chemically Tunable Metalâˆ'Insulator Transition. ACS Nano, 2010, 4, 4033-4038.	14.6	149
159	Quantum Transport in Graphene Nanoribbons: Effects of Edge Reconstruction and Chemical Reactivity. ACS Nano, 2010, 4, 1971-1976.	14.6	108
160	Phonon transport in large scale carbon-based disordered materials: Implementation of an efficient order-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>N</mml:mi></mml:math>and real-space Kubo methodology. Physical Review B, 2010, 82, .	3.2	41
161	Modeling graphene-based nanoelectromechanical devices. Physical Review B, 2010, 81, .	3.2	56
162	Tuning the band gap of semiconducting carbon nanotube by an axial magnetic field. Applied Physics Letters, 2010, 96, 132101.	3.3	17

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163	Edge-disorder-dependent transport length scales in graphene nanoribbons: From Klein defects to the superlattice limit. Physical Review B, 2009, 79, .	3.2	82
164	Multiscale simulation of carbon nanotube devices. Comptes Rendus Physique, 2009, 10, 305-319.	0.9	15
165	Charge transport in carbon nanotubes based materials: a Kuboâ€“Greenwood computational approach. Comptes Rendus Physique, 2009, 10, 283-296.	0.9	46
166	Carbon nanotube chemistry and assembly for electronic devices. Comptes Rendus Physique, 2009, 10, 330-347.	0.9	28
167	Propagative Landau States and Fermi Level Pinning in Carbon Nanotubes. Physical Review Letters, 2009, 103, 256801.	7.8	11
168	Chemically Induced Mobility Gaps in Graphene Nanoribbons: A Route for Upscaling Device Performances. Nano Letters, 2009, 9, 2725-2729.	9.1	120
169	Effect of the Chemical Functionalization on Charge Transport in Carbon Nanotubes at the Mesoscopic Scale. Nano Letters, 2009, 9, 940-944.	9.1	118
170	Range and correlation effects in edge disordered graphene nanoribbons. New Journal of Physics, 2009, 11, 095004.	2.9	55
171	Anomalous Doping Effects on Charge Transport in Graphene Nanoribbons. Physical Review Letters, 2009, 102, 096803.	7.8	323
172	Atomistic Tight-Binding Approaches to Quantum Transport. , 2009, , .		2
173	Chemical Functionalization Effects on Armchair Graphene Nanoribbon Transport. Nano Letters, 2009, 9, 2537-2541.	9.1	93
174	Spin-valve effect in zigzag graphene nanoribbons by defect engineering. Physical Review B, 2009, 80, .	3.2	56
175	Charge transport in disordered graphene-based low dimensional materials. Nano Research, 2008, 1, 361-394.	10.4	319
176	Exploring the magnetically induced field effect in carbon nanotube-based devices. Physica E: Low-Dimensional Systems and Nanostructures, 2008, 40, 1010-1013.	2.7	5
177	Orientational Dependence of Charge Transport in Disordered Silicon Nanowires. Nano Letters, 2008, 8, 4146-4150.	9.1	90
178	Quantum transport length scales in silicon-based semiconducting nanowires: Surface roughness effects. Physical Review B, 2008, 77, .	3.2	51
179	Transport Length Scales in Disordered Graphene-Based Materials: Strong Localization Regimes and Dimensionality Effects. Physical Review Letters, 2008, 100, 036803.	7.8	192
180	Charge Transport in Chemically Doped 2D Graphene. Physical Review Letters, 2008, 101, 036808.	7.8	461

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181	Onset of Landau-Level Formation in Carbon-Nanotube-Based Electronic Fabry-Perot Resonators. Physical Review Letters, 2008, 101, 046803.	7.8	42
182	Nonequilibrium energy gaps in carbon nanotubes: Role of phonon symmetries. Physical Review B, 2008, 78, .	3.2	36
183	Point-Mutation Effects on Charge-Transport Properties of the Tumor-Suppressor Gene<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>p</mml:mi><mml:mn>53</mml:mn></mml:math>. Physical Review Letters, 2008, 100, 018105.	7.8	57
184	An application of carbon nanotubes for integrated circuit interconnects. , 2008, , .		3
185	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
186	A simple drain current model for Schottky-barrier carbon nanotube field effect transistors. Nanotechnology, 2007, 18, 419001.	2.6	9
187	High Magnetic Field Phenomena in Carbon Nanotubes. Topics in Applied Physics, 2007, , 393-422.	0.8	11
188	Diameter dependent phonon-induced backscattering in semiconducting carbon nanotubes. Physical Review B, 2007, 75, .	3.2	6
189	Competition between magnetic field dependent band structure and coherent backscattering in multiwall carbon nanotubes. New Journal of Physics, 2007, 9, 56-56.	2.9	8
190	Effects of electron-phonon interaction on transport through carbon nanotubes: lifting of degeneracies in Fock-space. Journal of Physics: Conference Series, 2007, 92, 012057.	0.4	0
191	Electronic and transport properties of nanotubes. Reviews of Modern Physics, 2007, 79, 677-732.	45.6	1,234
192	A simple drain current model for Schottky-barrier carbon nanotube field effect transistors. Nanotechnology, 2007, 18, 025201.	2.6	50
193	Multiscale modeling of Schottky-barrier MOSFETs with disilicide source/drain contacts: Role of contacts in the carrier injection. Physical Review B, 2007, 76, .	3.2	6
194	Magnetically Induced Field Effect in Carbon Nanotube Devices. Nano Letters, 2007, 7, 960-964.	9.1	62
195	Aharonov-Bohm Conductance Modulation in Ballistic Carbon Nanotubes. Physical Review Letters, 2007, 98, 176802.	7.8	41
196	Charge transport in carbon nanotubes: quantum effects of electronâ€“phonon coupling. Journal of Physics Condensed Matter, 2007, 19, 183203.	1.8	33
197	Probing nanotube-based ambipolar FET by magnetic field. AIP Conference Proceedings, 2007, , .	0.4	0
198	Electronâ€“phonon induced conductance gaps in carbon nanotubes. Applied Physics A: Materials Science and Processing, 2007, 86, 283-288.	2.3	8

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