

François M Peeters

List of Publications by Year in descending order

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407
all docs

407
docs citations

407
times ranked

16684
citing authors

#	ARTICLE	IF	CITATIONS
1	Monolayer behaviour in bulk ReS ₂ due to electronic and vibrational decoupling. Nature Communications, 2014, 5, 3252.	5.8	906
2	From graphene to graphite: Electronic structure around the K point. Physical Review B, 2006, 74, .	1.1	849
3	Bandgap engineering of two-dimensional semiconductor materials. Npj 2D Materials and Applications, 2020, 4, .	3.9	528
4	Anomalous Raman spectra and thickness-dependent electronic properties of WSe ₂ . Physical Review B, 2013, 87, .	1.1	408
5	First-principles investigation of graphene fluoride and graphane. Physical Review B, 2010, 82, .	1.1	397
6	Phase transitions in individual sub-micrometre superconductors. Nature, 1997, 390, 259-262.	13.7	388
7	Tuning the Optical, Magnetic, and Electrical Properties of ReSe ₂ by Nanoscale Strain Engineering. Nano Letters, 2015, 15, 1660-1666.	4.5	363
8	Graphene: A perfect nanoballoon. Applied Physics Letters, 2008, 93, .	1.5	346
9	Tuning of energy levels and optical properties of graphene quantum dots. Physical Review B, 2008, 77, .	1.1	303
10	Electrically controlled water permeation through graphene oxide membranes. Nature, 2018, 559, 236-240.	13.7	263
11	Valley-Dependent Brewster Angles and Goos-Hänchen Effect in Strained Graphene. Physical Review Letters, 2011, 106, 176802.	2.9	253
12	Mo ₂ C as a high capacity anode material: a first-principles study. Journal of Materials Chemistry A, 2016, 4, 6029-6035.	5.2	249
13	Confined states and direction-dependent transmission in graphene quantum wells. Physical Review B, 2006, 74, .	1.1	227
14	Extra Dirac points in the energy spectrum for superlattices on single-layer graphene. Physical Review B, 2010, 81, .	1.1	225
15	Energy levels of two- and three-dimensional polarons in a magnetic field. Physical Review B, 1985, 31, 3689-3695.	1.1	205
16	Direction-dependent tunneling through nanostructured magnetic barriers in graphene. Physical Review B, 2008, 77, .	1.1	203
17	Phonon softening and direct to indirect band gap crossover in strained single-layer MoSe ₂ . Physical Review B, 2013, 87, .	1.1	200
18	Dirac and Klein-Gordon particles in one-dimensional periodic potentials. Physical Review B, 2008, 77, .	1.1	199

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19	Commensurability Effects in Viscosity of Nanoconfined Water. ACS Nano, 2016, 10, 3685-3692.	7.3	198
20	MXenes/graphene heterostructures for Li battery applications: a first principles study. Journal of Materials Chemistry A, 2018, 6, 2337-2345.	5.2	173
21	Tunable Quantum Dots in Bilayer Graphene. Nano Letters, 2007, 7, 946-949.	4.5	169
22	Environmental Changes in MoTe ₂ Excitonic Dynamics by Defects-Activated Molecular Interaction. ACS Nano, 2015, 9, 5326-5332.	7.3	166
23	Quasibound states of quantum dots in single and bilayer graphene. Physical Review B, 2008, 77, .	1.1	164
24	Promising Piezoelectric Performance of Single Layer Transition-Metal Dichalcogenides and Dioxides. Journal of Physical Chemistry C, 2015, 119, 23231-23237.	1.5	164
25	Mechanical and thermal properties of <i>h</i> -MX ₂ (M = Cr, Mo, W; X = O, S, Se, Te) monolayers: A comparative study. Applied Physics Letters, 2014, 104, 203110.	1.5	157
26	Quantum properties and applications of 2D Janus crystals and their superlattices. Applied Physics Reviews, 2020, 7, .	5.5	156
27	Graphene-based resonant-tunneling structures. Applied Physics Letters, 2007, 90, 132122.	1.5	153
28	Significant effect of stacking on the electronic and optical properties of few-layer black phosphorus. Physical Review B, 2015, 92, .	1.1	152
29	Formation and stability of point defects in monolayer rhenium disulfide. Physical Review B, 2014, 89, .	1.1	151
30	Energy levels of triangular and hexagonal graphene quantum dots: A comparative study between the tight-binding and Dirac equation approach. Physical Review B, 2011, 84, .	1.1	148
31	Thermal properties of black and blue phosphorenes from a first-principles quasiharmonic approach. Physical Review B, 2015, 92, .	1.1	140
32	Ground-state energy of a polaron in dimensions. Physical Review B, 1986, 33, 3926-3934.	1.1	137
33	Normal and Dirac fermions in graphene multilayers: Tight-binding description of the electronic structure. Physical Review B, 2007, 75, .	1.1	137
34	Landau levels and oscillator strength in a biased bilayer of graphene. Physical Review B, 2007, 76, .	1.1	125
35	Mechanical properties of monolayer GaS and GaSe crystals. Physical Review B, 2016, 94, .	1.1	122
36	Hexagonal AlN: Dimensional-crossover-driven band-gap transition. Physical Review B, 2015, 91, .	1.1	121

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37	Electronic, vibrational, elastic, and piezoelectric properties of monolayer Janus MoSTe phases: A first-principles study. <i>Physical Review B</i> , 2019, 100, .	1.1	120
38	Hall magnetometer in the ballistic regime. <i>Applied Physics Letters</i> , 1998, 72, 572-574.	1.5	118
39	Evidence of flat bands and correlated states in buckled graphene superlattices. <i>Nature</i> , 2020, 584, 215-220.	13.7	118
40	Realization of a tunable artificial atom at a supercritically charged vacancy in graphene. <i>Nature Physics</i> , 2016, 12, 545-549.	6.5	110
41	Wave-packet dynamics and valley filter in strained graphene. <i>Physical Review B</i> , 2010, 82, .	1.1	108
42	Stone-Wales defects in silicene: Formation, stability, and reactivity of defect sites. <i>Physical Review B</i> , 2013, 88, .	1.1	108
43	Stable half-metallic monolayers of FeCl ₂ . <i>Applied Physics Letters</i> , 2015, 106, .	1.5	108
44	Direct Coulomb and phonon-mediated coupling between spatially separated electron gases. <i>Physical Review Letters</i> , 1992, 68, 2516-2519.	2.9	107
45	Effect of the confining potential on the magneto-optical spectrum of a quantum dot. <i>Journal of Applied Physics</i> , 1990, 68, 3435-3438.	1.1	105
46	Dirac electrons in a Kronig-Penney potential: Dispersion relation and transmission periodic in the strength of the barriers. <i>Physical Review B</i> , 2009, 80, .	1.1	101
47	Mechanical properties of monolayer sulphides: a comparative study between MoS ₂ , HfS ₂ and TiS ₃ . <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 27742-27749.	1.3	99
48	Spin-Valley Filtering in Strained Graphene Structures with Artificially Induced Carrier Mass and Spin-Orbit Coupling. <i>Physical Review Letters</i> , 2014, 113, 046601.	2.9	98
49	Wavevector filtering through single-layer and bilayer graphene with magnetic barrier structures. <i>Applied Physics Letters</i> , 2008, 93, 242103.	1.5	93
50	Statistical properties of polarons in a magnetic field. I. Analytic results. <i>Physical Review B</i> , 1982, 25, 7281-7301.	1.1	92
51	Anisotropic exciton Stark shift in black phosphorus. <i>Physical Review B</i> , 2015, 91, .	1.1	92
52	Extended Ginzburg-Landau Formalism for Two-Band Superconductors. <i>Physical Review Letters</i> , 2011, 106, 047005.	2.9	91
53	Pseudo magnetic field in strained graphene: Revisited. <i>Solid State Communications</i> , 2013, 175-176, 76-82.	0.9	90
54	Strain-induced topological phase transition in phosphorene and in phosphorene nanoribbons. <i>Physical Review B</i> , 2016, 94, .	1.1	90

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55	Minigaps and Novel Giant Negative Magnetoresistance in InAs/GaSb Semimetallic Superlattices. <i>Physical Review Letters</i> , 1997, 79, 3034-3037.	2.9	89
56	Klein tunneling in single and multiple barriers in graphene. <i>Semiconductor Science and Technology</i> , 2010, 25, 033002.	1.0	89
57	Alkali Metal Intercalation in MXene/Graphene Heterostructures: A New Platform for Ion Battery Applications. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 727-734.	2.1	88
58	Efficient Numerical Approach to Inhomogeneous Superconductivity: The Chebyshev-Bogoliubov-de Gennes Method. <i>Physical Review Letters</i> , 2010, 105, 167006.	2.9	87
59	Thermomechanical properties of a single hexagonal boron nitride sheet. <i>Physical Review B</i> , 2013, 87, .	1.1	87
60	Oscillations of the superconducting temperature induced by quantum well states in thin metallic films: Numerical solution of the Bogoliubov-de Gennes equations. <i>Physical Review B</i> , 2007, 75, .	1.1	84
61	Electronic and optical properties of a circular graphene quantum dot in a magnetic field: Influence of the boundary conditions. <i>Physical Review B</i> , 2011, 84, .	1.1	84
62	Realization of free-standing silicene using bilayer graphene. <i>Applied Physics Letters</i> , 2013, 103, .	1.5	80
63	Bilayer graphene with single and multiple electrostatic barriers: Band structure and transmission. <i>Physical Review B</i> , 2009, 79, .	1.1	79
64	Tuning a circular p-n junction in graphene from quantum confinement to optical guiding. <i>Nature Nanotechnology</i> , 2017, 12, 1045-1049.	15.6	79
65	C ₃ N Monolayer: Exploring the Emerging of Novel Electronic and Magnetic Properties with Adatom Adsorption, Functionalizations, Electric Field, Charging, and Strain. <i>Journal of Physical Chemistry C</i> , 2019, 123, 12485-12499.	1.5	78
66	Nanoribbons: From fundamentals to state-of-the-art applications. <i>Applied Physics Reviews</i> , 2016, 3, .	5.5	77
67	Anisotropic electronic, mechanical, and optical properties of monolayer WTe ₂ . <i>Journal of Applied Physics</i> , 2016, 119, .	1.1	76
68	Tuning Carrier Confinement in the MoS ₂ /WS ₂ Lateral Heterostructure. <i>Journal of Physical Chemistry C</i> , 2015, 119, 9580-9586.	1.5	74
69	Composite super-moiré lattices in double-aligned graphene heterostructures. <i>Science Advances</i> , 2019, 5, eaay8897.	4.7	74
70	Janus two-dimensional transition metal dichalcogenide oxides: First-principles investigation of $W\text{-}X\text{-}O$ monolayers with S , Se, and Te. <i>Physical Review B</i> , 2021, 103, .	1.1	73
71	Single-layer and bilayer graphene superlattices: collimation, additional Dirac points and Dirac lines. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2010, 368, 5499-5524.	1.6	71
72	Two-dimensional carbon nitride (2DCN) nanosheets: Tuning of novel electronic and magnetic properties by hydrogenation, atom substitution and defect engineering. <i>Journal of Applied Physics</i> , 2019, 126, .	1.1	70

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73	Unusual lattice vibration characteristics in whiskers of the pseudo-one-dimensional titanium trisulfide TiS ₃ . Nature Communications, 2016, 7, 12952.	5.8	69
74	Vibrational properties of graphene fluoride and graphane. Applied Physics Letters, 2011, 98, .	1.5	68
75	Tunable spin and charge transport in silicene nanoribbons. Physical Review B, 2015, 92, .	1.1	67
76	Optical Aharonov-Bohm effect in stacked type-II quantum dots. Physical Review B, 2007, 76, .	1.1	66
77	Electron tunneling through double magnetic barriers on the surface of a topological insulator. Physical Review B, 2010, 82, .	1.1	66
78	Ginzburg-Landau theory for multiband superconductors: Microscopic derivation. Physical Review B, 2013, 87, .	1.1	66
79	Influence of vacancy defects on the thermal stability of silicene: a reactive molecular dynamics study. RSC Advances, 2014, 4, 1133-1137.	1.7	66
80	Graphene on boron-nitride: Moiré pattern in the van der Waals energy. Applied Physics Letters, 2014, 104, .	1.5	66
81	Dependence of the shape of graphene nanobubbles on trapped substance. Nature Communications, 2017, 8, 15844.	5.8	65
82	Strong dichroic emission in the pseudo one dimensional material ZrS ₃ . Nanoscale, 2016, 8, 16259-16265.	2.8	63
83	Doping of rhenium disulfide monolayers: a systematic first principles study. Physical Chemistry Chemical Physics, 2014, 16, 16771-16779.	1.3	62
84	Superconducting diode effect via conformal-mapped nanoholes. Nature Communications, 2021, 12, 2703.	5.8	61
85	Carbon clusters: From ring structures to nanographene. Physical Review B, 2010, 81, .	1.1	60
86	Anomalous Dynamical Behavior of Freestanding Graphene Membranes. Physical Review Letters, 2016, 117, 126801.	2.9	59
87	Coulomb coupling between spatially separated electron and hole layers: Generalized random-phase approximation. Physical Review Letters, 1993, 70, 2146-2149.	2.9	58
88	$\langle \text{mml:math} \text{xmlns:mml}="http://www.w3.org/1998/Math/MathML"> \langle \text{mml:msub} \langle \text{mml:mi} \text{TiS} \langle \text{mml:mi} \langle \text{mml:mn} \rangle 3 \langle \text{mml:mn} \rangle 1 \langle \text{mml:msub} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:math} \rangle \text{Width-independent band gap and strain-tunable electronic properties. Physical Review B, 2015, 92, .$	1.1	58
89	Strain controlled valley filtering in multi-terminal graphene structures. Applied Physics Letters, 2016, 109, .	1.5	58
90	Nitrogenated, phosphorated and arsenicated monolayer holey graphenes. Physical Chemistry Chemical Physics, 2016, 18, 3144-3150.	1.3	57

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91	Introducing novel electronic and magnetic properties in C_3N nanosheets by defect engineering and atom substitution. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 21070-21083.	1.3	57
92	Spin and valley polarization of plasmons in silicene due to external fields. <i>Physical Review B</i> , 2014, 90, .	1.1	56
93	The work function of few-layer graphene. <i>Journal of Physics Condensed Matter</i> , 2017, 29, 035003.	0.7	56
94	Tuning the bandgap and introducing magnetism into monolayer BC ₃ by strain/defect engineering and adatom/molecule adsorption. <i>Journal of Applied Physics</i> , 2019, 126, .	1.1	56
95	Resonant valley filtering of massive Dirac electrons. <i>Physical Review B</i> , 2012, 86, .	1.1	55
96	Nanoengineered nonuniform strain in graphene using nanopillars. <i>Physical Review B</i> , 2012, 86, .	1.1	55
97	Magnetic field tuning of the effective g factor in a diluted magnetic semiconductor quantum dot. <i>Applied Physics Letters</i> , 2003, 82, 2661-2663.	1.5	54
98	Chiral states in bilayer graphene: Magnetic field dependence and gap opening. <i>Physical Review B</i> , 2011, 84, .	1.1	53
99	Graphane. <i>Wiley Interdisciplinary Reviews: Computational Molecular Science</i> , 2015, 5, 255-272.	6.2	53
100	Landau levels above the optical-phonon continuum in two and three dimensions. <i>Physical Review B</i> , 1986, 33, 4338-4340.	1.1	52
101	Electronic structure of a hexagonal graphene flake subjected to triaxial stress. <i>Physical Review B</i> , 2013, 88, .	1.1	52
102	Peculiar half-metallic state in zigzag nanoribbons of MoS_2 . Spin filtering. <i>Physical Review B</i> , 2016, 94, .	1.1	52
103	Interlayer excitons in transition metal dichalcogenide heterostructures. <i>Physical Review B</i> , 2018, 98, .	1.1	52
104	Stabilized silicene within bilayer graphene: A proposal based on molecular dynamics and density-functional tight-binding calculations. <i>Physical Review B</i> , 2014, 89, .	1.1	51
105	Vacancy Formation and Oxidation Characteristics of Single Layer TiS ₃ . <i>Journal of Physical Chemistry C</i> , 2015, 119, 10709-10715.	1.5	51
106	Bilayer SnS_2 . Tunable stacking sequence by charging and loading pressure. <i>Physical Review B</i> , 2016, 93, .	1.1	51
107	Tight-binding model for borophene and borophane. <i>Physical Review B</i> , 2018, 97, .	1.1	51
108	Electronic states in a graphene flake strained by a Gaussian bump. <i>Physical Review B</i> , 2013, 88, .	1.1	50

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109	Peculiar Piezoelectric Properties of Soft Two-Dimensional Materials. Journal of Physical Chemistry C, 2016, 120, 13948-13953.	1.5	50
110	Unusual dimensionality effects and surface charge density in 2D Mg(OH) ₂ . Scientific Reports, 2016, 6, 20525.	1.6	49
111	Electronic and vibrational properties of PbI ₂ : From bulk to monolayer. Physical Review B, 2018, 98, .	1.1	49
112	Adsorption of molecules on C ₃ N nanosheet: A first-principles calculations. Chemical Physics, 2019, 526, 110442.	0.9	49
113	AA-stacked bilayer square ice between graphene layers. Physical Review B, 2015, 92, .	1.1	48
114	Electronic and magnetic properties of superlattices of graphene/graphane nanoribbons with different edge hydrogenation. Physical Review B, 2010, 82, .	1.1	47
115	Electronic properties of triangular and hexagonal MoS ₂ nanoribbons with different edge hydrogenation. Physical Review B, 2015, 91, .	1.1	47
116	Double Moiré with a Twist: Supermoiré in Encapsulated Graphene. Nano Letters, 2020, 20, 979-988.	4.5	47
117	Graphene ribbons with a line of impurities: Opening of a gap. Physical Review B, 2007, 76, .	1.1	46
118	Transport of hydrogen isotopes through interlayer spacing in van der Waals crystals. Nature Nanotechnology, 2018, 13, 468-472.	15.6	45
119	Excitons, trions, and biexcitons in transition-metal dichalcogenides: Magnetic-field dependence. Physical Review B, 2018, 97, .	1.1	45
120	Wave packet dynamics in semiconductor quantum rings of finite width. Physical Review B, 2009, 80, .	1.1	44
121	Valley filtering using electrostatic potentials in bilayer graphene. Physical Review B, 2015, 92, .	1.1	44
122	Induced polarization and electronic properties of carbon-doped boron nitride nanoribbons. Physical Review B, 2012, 86, .	1.1	43
123	Enhancement of electron-hole superfluidity in double few-layer graphene. Scientific Reports, 2014, 4, 7319.	1.6	42
124	New nanoporous graphyne monolayer as nodal line semimetal: Double Dirac points with an ultrahigh Fermi velocity. Carbon, 2019, 141, 712-718.	5.4	42
125	PAI-graphene: A new topological semimetallic two-dimensional carbon allotrope with highly tunable anisotropic Dirac cones. Carbon, 2020, 170, 477-486.	5.4	42
126	Blue Energy Conversion from Holey-Graphene-like Membranes with a High Density of Subnanometer Pores. Nano Letters, 2020, 20, 8634-8639.	4.5	42

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127	Theory of anharmonic phonons in two-dimensional crystals. <i>Physical Review B</i> , 2015, 91, .	1.1	41
128	Rippling, buckling, and melting of single- and multilayer MoS_2 . <i>Physical Review B</i> , 2015, 91, .	1.1	41
129	Kronig-Penney model on bilayer graphene: Spectrum and transmission periodic in the strength of the barriers. <i>Physical Review B</i> , 2010, 82, .	1.1	40
130	Extended Ginzburg-Landau formalism: Systematic expansion in small deviation from the critical temperature. <i>Physical Review B</i> , 2012, 85, .	1.1	40
131	van der Waals heterobilayer: Electric field tunable band-gap crossover. <i>Physical Review B</i> , 2016, 94, .	1.1	40
132	Carbon-rich carbon nitride monolayers with Dirac cones: Dumbbell C_4N . <i>Carbon</i> , 2017, 118, 285-290.	5.4	40
133	Exploiting the Novel Electronic and Magnetic Structure of C_3N via Functionalization and Conformation. <i>Advanced Electronic Materials</i> , 2019, 5, 1900459.	2.6	40
134	Continuous structural transitions in quasi-one-dimensional classical Wigner crystals. <i>Physical Review B</i> , 2010, 81, .	1.1	39
135	Enhancement of the Stability of Fluorine Atoms on Defective Graphene and at Graphene/Fluorographene Interface. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 19659-19665.	4.0	39
136	The Electronic, Optical, and Thermoelectric Properties of Monolayer PbTe and the Tunability of the Electronic Structure by External Fields and Defects. <i>Physica Status Solidi (B): Basic Research</i> , 2020, 257, 2000182.	0.7	38
137	Magnetic interface states in graphene-based quantum wires. <i>Physical Review B</i> , 2007, 75, .	1.1	37
138	Tuning the magnetic anisotropy in single-layer crystal structures. <i>Physical Review B</i> , 2015, 92, .	1.1	37
139	Two-dimensional graphitic carbon nitrides: Strain-tunable ferromagnetic ordering. <i>Physical Review B</i> , 2020, 101, .	1.1	37
140	Analytical study of the energy levels in bilayer graphene quantum dots. <i>Carbon</i> , 2014, 78, 392-400.	5.4	36
141	Electric-field-induced structural changes in water confined between two graphene layers. <i>Physical Review B</i> , 2016, 94, .	1.1	36
142	Atypical BCS-BEC crossover induced by quantum-size effects. <i>Physical Review A</i> , 2012, 86, .	1.0	35
143	Quantum anomalous Hall effect in a stable 1T-YN_2 monolayer with a large nontrivial bandgap and a high Chern number. <i>Nanoscale</i> , 2018, 10, 8153-8161.	2.8	35
144	Out-of-plane permittivity of confined water. <i>Physical Review E</i> , 2020, 102, 022803.	0.8	35

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145	<p>Theoretical study of the stable states of small carbon clusters C_n</p> <p>Physical Review B, 2008, 78, .</p>	1.1	34
146	Dependence of resistivity on electron density and temperature in graphene. Physical Review B, 2009, 79, .	1.1	34
147	Wavepacket scattering of Dirac and Schrödinger particles on potential and magnetic barriers. Journal of Physics Condensed Matter, 2011, 23, 275801.	0.7	34
148	Portlandite crystal: Bulk, bilayer, and monolayer structures. Physical Review B, 2015, 91, .	1.1	34
149	Heterostructures of graphene and nitrogenated holey graphene: Moiré pattern and Dirac ring. Physical Review B, 2015, 92, .	1.1	34
150	Fast water flow through graphene nanocapillaries: A continuum model approach involving the microscopic structure of confined water. Applied Physics Letters, 2018, 113, .	1.5	34
151	DC conductivity of twisted bilayer graphene: Angle-dependent transport properties and effects of disorder. Physical Review Materials, 2018, 2, .	0.9	34
152	Insights into Water Permeation through hBN Nanocapillaries by Ab Initio Machine Learning Molecular Dynamics Simulations. Journal of Physical Chemistry Letters, 2020, 11, 7363-7370.	2.1	33
153	Strain and electric field tuning of semi-metallic character $WCrCO_2$ MXenes with dual narrow band gap. Journal of Physics Condensed Matter, 2020, 32, 355504.	0.7	33
154	Dirac half-metallicity of Thin PdCl ₃ Nanosheets: Investigation of the Effects of External Fields, Surface Adsorption and Defect Engineering on the Electronic and Magnetic Properties. Scientific Reports, 2020, 10, 213.	1.6	33
155	Quantum and transport conductivities in monolayer graphene. Physical Review B, 2008, 77, .	1.1	32
156	Quantum tunneling through graphene nanorings. Nanotechnology, 2010, 21, 185201.	1.3	32
157	Optoelectronic properties of graphene in the presence of optical phonon scattering. Physical Review B, 2010, 82, .	1.1	32
158	Spin and momentum filtering of electrons on the surface of a topological insulator. Applied Physics Letters, 2011, 98, 162101.	1.5	32
159	Vortex-vortex interaction in bulk superconductors: Ginzburg-Landau theory. Physical Review B, 2011, 83, .	1.1	32
160	Electron-electron interactions in bilayer graphene quantum dots. Physical Review B, 2013, 88, .	1.1	32
161	Structural, electronic and optical properties of Cu-doped ZnO: experimental and theoretical investigation. Philosophical Magazine, 2016, 96, 1743-1756.	0.7	32
162	Antiferromagnetism in hexagonal graphene structures: Rings versus dots. Physical Review B, 2013, 87, .	1.1	31

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163	Field Effect and Strongly Localized Carriers in the Metal-Insulator Transition Material VO ₂ . Physical Review Letters, 2015, 115, 196401.	2.9	31
164	The Split-Operator Technique for the Study of Spinorial Wavepacket Dynamics. Communications in Computational Physics, 2015, 17, 850-866.	0.7	31
165	Tunable skewed edges in puckered structures. Physical Review B, 2016, 93, .	1.1	31
166	Electric- and magnetic-field dependence of the electronic and optical properties of phosphorene quantum dots. Nanotechnology, 2017, 28, 085702.	1.3	31
167	Electronic properties of bilayer phosphorene quantum dots in the presence of perpendicular electric and magnetic fields. Physical Review B, 2017, 96, .	1.1	31
168	Quantum transport in defective phosphorene nanoribbons: Effects of atomic vacancies. Physical Review B, 2018, 97, .	1.1	31
169	Single-layer Janus black arsenic-phosphorus (b-AsP): Optical dichroism, anisotropic vibrational, thermal, and elastic properties. Physical Review B, 2020, 101, .	1.1	31
170	Continuum Wannier-Stark Ladders Strongly Coupled by Zener Resonances in Semiconductor Superlattices. Physical Review Letters, 1999, 82, 3120-3123.	2.9	30
171	Topological confinement in graphene bilayer quantum rings. Applied Physics Letters, 2010, 96, .	1.5	30
172	All-strain based valley filter in graphene nanoribbons using snake states. Physical Review B, 2016, 94, .	1.1	30
173	Energy levels of hybrid monolayer-bilayer graphene quantum dots. Physical Review B, 2016, 93, .	1.1	30
174	Landau levels in graphene bilayer quantum dots. Physical Review B, 2009, 79, .	1.1	29
175	Resonant tunneling through S- and U-shaped graphene nanoribbons. Nanotechnology, 2009, 20, 415203.	1.3	29
176	Cerenkov emission of terahertz acoustic-phonons from graphene. Applied Physics Letters, 2013, 102, 222101.	1.5	29
177	Dirac nodal line in bilayer borophene: Tight-binding model and low-energy effective Hamiltonian. Physical Review B, 2018, 98, .	1.1	29
178	Exponentially selective molecular sieving through angstrom pores. Nature Communications, 2021, 12, 7170.	5.8	29
179	Wave-packet scattering on graphene edges in the presence of a pseudomagnetic field. Physical Review B, 2012, 86, .	1.1	28
180	Reversible structural transition in nanoconfined ice. Physical Review B, 2017, 95, .	1.1	28

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181	Free surfaces recast superconductivity in few-monolayer MgB ₂ : Combined first-principles and ARPES demonstration. Scientific Reports, 2017, 7, 14458.	1.6	27
182	Control of the persistent currents in two interacting quantum rings through the Coulomb interaction and interring tunneling. Physical Review B, 2008, 78, .	1.1	26
183	Transport detection of quantum Hall fluctuations in graphene. Physical Review B, 2010, 81, .	1.1	26
184	Exciton pumping across type-I gallium chalcogenide heterojunctions. Nanotechnology, 2016, 27, 065203.	1.3	26
185	Raman fingerprint of stacking order in $\text{HfS}_2/\text{MoSe}_2$ heterobilayer. Physical Review B, 2019, 99, .	1.1	26
186	Artificial molecular quantum rings: Spin density functional theory calculations. Physical Review B, 2006, 74, .	1.1	25
187	Klein paradox for a pn junction in multilayer graphene. Europhysics Letters, 2013, 102, 27001.	0.7	25
188	Engineering electronic properties of metal-MoSe ₂ interfaces using self-assembled monolayers. Journal of Materials Chemistry C, 2014, 2, 9842-9849.	2.7	25
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